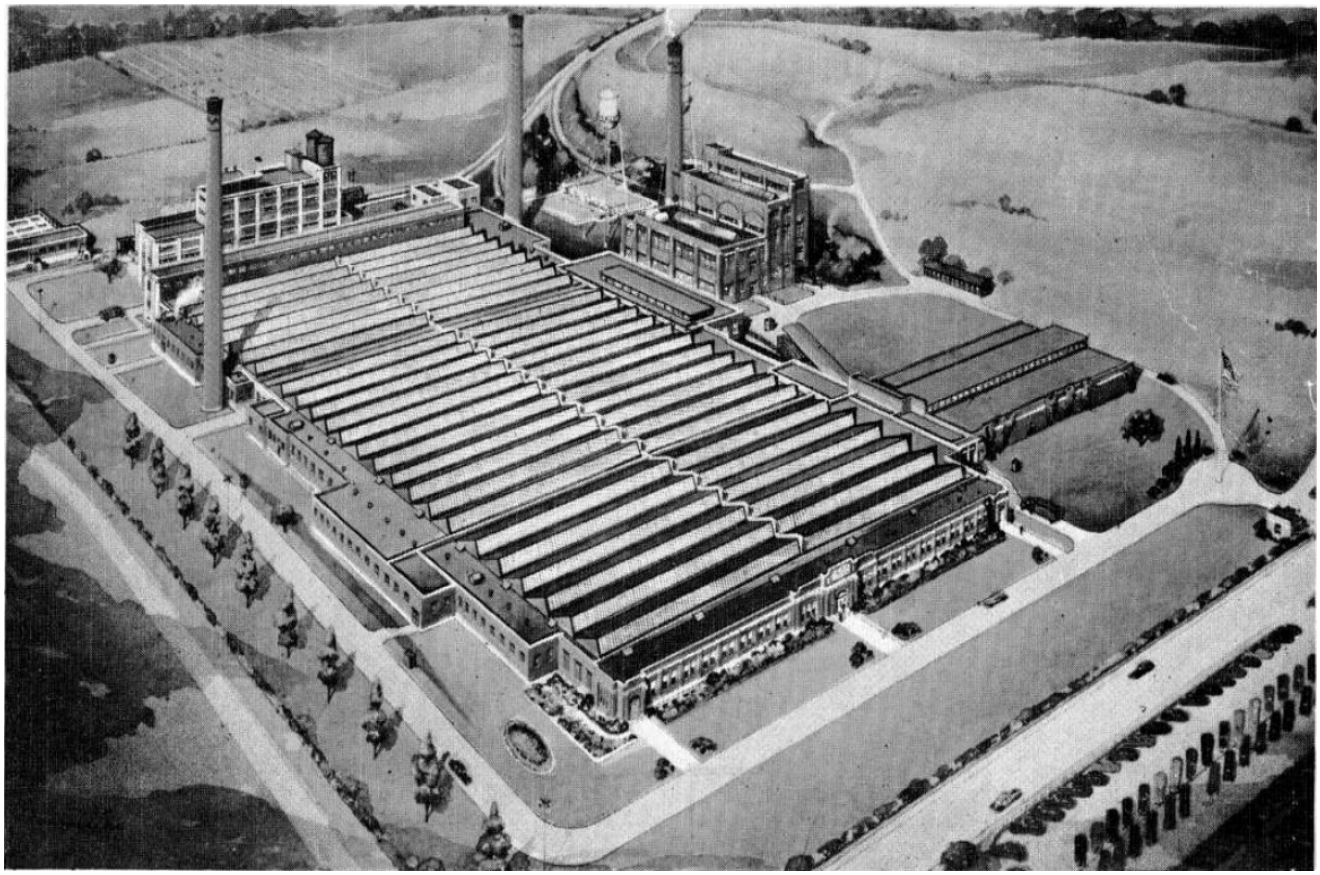
# PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Rail Over River Industrial Park / AET Slab Site**
**901 & 901A West Edgemont Drive, Covington, Virginia**



*COVER PHOTO: POSTCARD VIEW OF THE INDUSTRIAL RAYON PLANT IN COVINGTON (FROM THE COLLECTION OF HORTON P. BEIRNE)

**PREPARED FOR:**

Alleghany Highlands Economic Development Corporation
and the United States Environmental Protection Agency
USEPA Brownfields Assessment Grant Number: # BF – 96359901– 0

**AUGUST 18, 2020**

DAA Project Number: 18010252-010101

Draper Aden Associates
*Engineering • Surveying • Environmental Services*

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This report is presented in an electronic version only.

# EXECUTIVE SUMMARY

The Alleghany Highlands Economic Development Corporation (AHEDC) contracted Draper Aden Associates (DAA) under a United States Environmental Protection Agency (USEPA) Brownfields Assessment Grant, to perform a Phase I Environmental Site Assessment (ESA) for the subject property, the Rail Over River Industrial Park / AET Slab Site. The subject property, commonly known as the former Applied Extrusions Technologies Inc. (AET) / Hercules Inc. site, is located at 901 & 901A W. Edgemont Drive in Covington, Virginia. The AHEDC requested the Phase I ESA on behalf of the owners, Rail Over River Industrial Park, LLC and Kemper Properties, LLC. Draper Aden Associates performed the Phase I ESA in general accordance with the scope and limitations of the ASTM International (ASTM) Practice E1527-13 and the USEPA All Appropriate Inquiry (AAI) Rule in an effort to identify recognized environmental conditions (RECs) as defined by the ASTM standard. Additionally, an asbestos containing materials (ACM) and lead-based paint (LBP) survey were excluded as part of this assessment.

The approximately 109-acre subject property consists of tax parcels 38---A-----1- and 38---A-----1C in an industrial area located near the southwest corner of the Town of Covington. The site is home to a former industrial facility which manufactured rayon and nylon in the early years of operation and poly and latex films in the later years. Today, only five of the many former industrial buildings remain. Building No. 1 is the original 1929 factory building consisting of approximately 250,000 square feet (sf) per the Virginia Mass Appraisal Network (VamaNet). Building No. 2, positioned west of Building No. 1, was reportedly constructed in 1972, and is approximately 90,000sf. A metal storage shed, a lube storage shed, and a former sand filter plant are the other remaining buildings on the property.

Draper Aden Associates conducted a site reconnaissance on June 9, 2020 and at that time the buildings were utilized for warehousing, under renovation, or vacant. Exterior areas of the site were used for tractor trailer parking, materials storage by Westrock Paper Mill and Dominion Energy, and agriculture. The site was accessible, and views of the surrounding properties were generally unobstructed. Developed portions of the site were scrutinized while the historically undeveloped, heavily vegetated portion of the site to the south was given cursory observation.

No evidence of a release or obvious impact to the subject property was observed during the site reconnaissance. The site was identified on the  regulatory database search and additional regulatory file review was completed as part of this assessment.

This assessment revealed evidence of RECs in connection with the subject property associated with former industrial uses of the site.  A finding of RECs does not imply that impact actually exists, but that more information may be warranted.  Further discussion regarding RECs, historical RECs, areas of concern and de minimis conditions, data gaps, and associated findings and opinions is provided in the body of the report.

# 1.0 INTRODUCTION

The Alleghany Highlands Economic Development Corporation (AHEDC) contracted Draper Aden Associates, under a United States Environmental Protection Agency (USEPA) Brownfields Assessment Grant, to perform a Phase I Environmental Site Assessment (ESA) for the subject property, commonly known as the Rail Over River Industrial Park / AET Slab Site and former AET Films, Inc. / Hercules Inc. site, tax parcels: 38---A-----1- and 38---A-----1C, located at 901 & 901A W. Edgemont Drive in Covington, Virginia.

Draper Aden Associates performed this Phase I ESA in general accordance with the scope and limitations of the ASTM E1527-13: *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process* and the USEPA AAI Rule. The Phase I ESA included site reconnaissance conducted on June 9, 2020, interviews with the present and former property owners and local government officials, and review of practicably reviewable and reasonably ascertainable historical records and records of local, state and federal regulatory agencies, unless otherwise noted. Additional Virginia Department of Environmental Quality (DEQ) and United States Environmental Protection Agency (USEPA) file review was conducted as part of this assessment.

The subject property, adjoining and surrounding properties are depicted in Figures 1 through 7. Appendix A includes site photographs at the time of the site reconnaissance. Appendix B includes historical records review documentation. Appendix C includes regulatory review and physical setting documentation. Appendix D presents qualifications of the project environmental professionals. A review for controlled substances as defined by ASTM Section 1.1 was not conducted. The results of the Phase I ESA are provided below.

Note: Due to the large file sizes of Virginia Department of Environmental Quality (VDEQ) regulatory files (Appendix C), these files are provided as a separate attachment.

## 1.1 Purpose

A Phase I ESA is intended to identify recognized environmental conditions (RECs) on a site, as defined in Section 3.2.78 of the ASTM standard, from review of practically reviewable and reasonably ascertainable information about the site, including a site reconnaissance, to satisfy one of the requirements to qualify for the landowner liability protections, that being the practice that constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" (42 USC §9601(35)(B)) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The term REC means the presence or likely presence of hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment, (2) under conditions indicative of a release to the environment, or (3) under conditions that pose a material threat of a future release to the environment. If RECs are identified, the Phase I ESA report may indicate what additional activity is warranted to further evaluate the environmental conditions. Additionally, the property owner aims to use the results of the Phase I ESA to potentially update or renovate the existing building for use as a distributing company.

Draper Aden Associates prepared this document in accordance with generally accepted standards of environmental practice, and in general accordance with the scope and limitations of the ASTM standard. The conclusions presented in this report are professional opinions based on data described in this report, and are intended only for the purpose, site location, and project indicated. The conclusions presented in this report are based on the assumption that site conditions do not deviate from those observed during the study and described in this report.

This report is not an exhaustive study of potential environmental impact at the subject property and should not be interpreted as such. An evaluation of subsurface soil and groundwater conditions, radon, lead based paint, asbestos, wetlands assessment, vapor instruction survey, historical building assessment or other evaluation of environmental issues considered business environmental risk as defined by ASTM were not performed as part of this assessment, unless indicated. An environmental lien search was not included in the scope of services.

A vapor intrusion survey was outside the scope of services; however, Draper Aden Associates considered the potential for vapor encroachment (ASTM E2600-15) as part of this assessment. A vapor encroachment condition (VEC) as defined by the standard is the presence or likely presence of chemical(s) of concern (COC) vapors in the subsurface of a target property caused by the release of vapors from impacted soil or groundwater either on or near the subject property. COCs include any chemical that is present in the subsurface environment that can potentially migrate as a vapor into the subsurface of the target property (e.g., petroleum compounds); however, COCs do not include naturally occurring gases such as radon associated with certain types of subsurface geology.

The results of this assessment represent a review of current conditions based on practicably reviewable and reasonably ascertainable information and limited observations. Exceptions to, or deletions from, this practice are described in Section 8.0 of this report. A finding of RECs does not imply that impact actually exists, but that more information may be warranted.

# 2.0 PROPERTY DESCRIPTION

## 2.1 Location, Legal Description

The subject property is located in the City of Covington, Virginia at 901 and 901A W. Edgemont Road. A Site Location Map is presented as Figure 1. The approximately 109-acre property is composed of Tax Parcels 38---A-----1- (100.54-Acres) and 38---A-----1C (9.109-Acres). The subject property is currently identified as the Rail Over River Industrial Park / AET Slab Site and commonly known as the former Site of Applied Extrusions Technologies (AET) Films, Inc. / Hercules Inc. industrial facilities.

## 2.2 Site and Vicinity Characteristics

The subject property is located approximately 2 miles south of downtown Covington and within the corporate limits of the City of Covington, Virginia. The site contains two large buildings of approximately 250,000 and 90,000 square feet (sf), respectively and associated ancillary buildings/slabs which were part of the former manufacturing operations as far back as 1929. Approximately ½ of the subject property is developed and the remaining area is vacant and or in agricultural use. The Jackson River serves as a boundary on both the northern and southern sides of the subject site. Land to the west within the elbow of the Jackson River was formerly part of the subject property and was utilized by the former industry for landfilling wastes and sludge (see Figures 3 and 6). This area is now known as the closed Hercules Landfill. A CSX railroad spur crosses the Jackson River and enters the subject site from the southwest. Commercial properties and the City of Covington wastewater treatment plant border the site to the east. Vicinity properties within a half-mile of the subject site are primarily residential or recreational. The site and select adjacent/vicinity properties are presented on Figures 1 - 3.

## 2.3 Current Use of the Property

The majority of the approximately 250,000 sf original 1929 factory building (Building No. 1) is utilized for warehousing of secondary paper products manufactured by the local paper mill in Covington, Westrock. The large paper rolls are stored until they can be sold overseas or re-

pulped by Westrock. An additional section of the building is used for warehousing ceramics by the local Ingevity Carbon Plant in Covington. One small section of the plant is still in use as a poly film R&D line by Taghleef Industries, who purchased AET Films, Inc. in 2012. Reportedly, the poly film production line remaining in Building No. 1 is only used to diagnose problems encountered in off-site factories. Per the interview with the Key Site Manager, this problem-solving line does not manufacture or sell any product from this facility. The remainder of Building No. 1 is either vacant or under repairs.

Building No. 2 is currently utilized by United Industrial Services (UIS) which stores, manufactures, and repairs equipment utilized by Westrock in the paper making industry. Two tractor-trailer parking areas are present on the subject property bordering along the Jackson River. South of the industrial buildings is an area utilized by Dominion Energy as an outdoor equipment storage area. Further south, in the undeveloped portion of the site, is vacant or in use for agriculture. In 1980, a large portion of the facility located adjacent east of Building No. 1, the former AET Fiber Plant, was destroyed in a fire. The remaining slab (AET Slab) is utilized for tractor trailer parking by Westrock. See Figure 3 for building locations.

## 2.4 Description of Structures, Roads, Other Improvements on the Site

The subject property is fenced and is access restricted. A summary of current buildings and structures is provided below.

| Rail Over River Industrial Park / Tax Parcel # 38--A-----1- | | | |
|---|---|---|---|
| Description (Provided by VamaNet) | Height (Stories) | Size in SF (Provided by VamaNet or estimated via GIS) | Construction Date / Age (years) (estimated via aerial photos or provided by VamaNet) |
| Poly Film Plant (Building No.1) | (Varies) Mostly 1-story. Southern addition housing ASTs is 2-story | 207,450 | 1929 / 91 yrs |
| Basement (Building No. 1) | 1 | 40,284 | 1929 / 91 yrs |
| Office Area (Building No. 1) | 1 | 50,000 (estimated) | 1956 / 64 yrs |
| Filter Plant | 1 with basement | 4,270 | 1929 / 91 yrs |
| Gate House | 1 | N/A | 1929 / 91 yrs |
| Dock #1-3 Doors | N/A | 588 | N/A |
| Dock #2-4 Doors | N/A | 2,736 | N/A |
| Dock #3-5 Doors | N/A | 1,200 | N/A |

| | | | |
|---|---|---|---|
| Elevated Water Tank 50k-Gal | N/A | N/A | 1929 / 91 yrs |
| Elevated Fire Suppression Tank 50k-Gal | N/A | N/A | 1929 / 91 yrs |
| Railroad Siding | N/A | 440 | 1929 / 91 yrs |
| Fence-cl | N/A | 6,000 | N/A |
| Parking Lots | N/A | N/A | 1969 / 51 yrs |
| Lube Storage Shed | 1 | 1,097 | 1977 / 42 yrs |
| Steel Storage Shed | 1 | 4,500 | 1977 / 42 yrs |
| Building No. 2 | 1 with basement | 89,621 | 1972 / 48 yrs |
| Dock-loading | N/A | 162 | N/A |

| **AET Slab / Tax Parcel # 38--A-----1C** | | | |
|---|---|---|---|
| Description | Height (Stories) | Size in SF | Construction Date / Age (years) (estimated via aerial photos and available historic information) |
| Concrete slab and asphalt paving | N/A | 330,000 (estimated)* | 1954-1969 / 51-66 yrs (the former AET building was constructed over 3 additions between 1954-1969) |
| * In the interview with the AET Slab property Owner, the Owner noted that a portion of the former AET slab had recently been sold through Owner financing. The portion includes a 1-story, 4,000 sqft metal building and concrete parking area with entrance off of W. Edgemont Drive. This approximate 1.7-acre area has been excluded from the 330,000 sqft estimate of remaining area. | | | |

According to City of Covington GIS mapping, an additional building, a metal-sided warehouse owned by a separate entity, Dawn Warehousing, lies partially within the subject site boundary and partially out of it. The building was formerly a warehouse for AET, Inc. and is discussed in the interview with the AET Slab owner documented in Appendix B.

## 2.5 Current Uses of the Adjoining Properties and Surrounding Properties

### *Current Uses of Adjoining Properties*

The properties surrounding the subject property are mixed use including commercial/industrial, residential, and recreational uses. Select adjacent properties are depicted in Figure 2 and current adjoining property uses are detailed below:

***Adjacent Property Uses***

North
The Jackson River
Beyond the Jackson River
- Approximate 21-Acre Residential Lot

City of Covington Jackson River Sports Complex (northeast)

South
The Jackson River
Beyond the Jackson River
- Approximate 56-Acre Vacant Residential Lot
- City of Covington School Board (Jeter-Watson Intermediate School)

East
City of Covington Wastewater Treatment Plant
3 Commercial Properties
- Dawn Warehousing (Same ownership as AET Slab)
- Asphalt Parking Lot (Same ownership as AET Slab)
- Jackson River Enterprises, Inc. – Recycling Facility (Cardboard, Paper, Glass, Plastic, Tin and Aluminum Cans)

West
Commercial – Additional property owned by Rail Over River Industrial Park, LLC and formerly part of the Hercules Inc. /AET Inc. facility.

It is noted that the former Hercules, Inc. landfill which disposed of poly film materials and latex sludges from the Hercules, Inc. facility was formerly an adjacent property; however, it is now divided from the subject property by parcel 37---A-----2A, owned by Rail Over River Industrial Park, LLC. The landfill border is approximately 100-feet from the subject property at its closest point to the northeast. Due to this separation, the former Hercules, Inc. landfill is discussed as a vicinity property within this report.

RECs associated with the use of adjacent properties, if any, are identified in Section 7.0.

***Current Uses of Surrounding/Vicinity Properties***
Select surrounding/vicinity properties are depicted in Figures 2 and 3 Surrounding and vicinity properties within a half mile of the subject property are a mix of commercial/industrial, recreational, and residential developments.. RECs associated with the current use of surrounding properties, if any, are identified in Section 7.0.

# 3.0 USER PROVIDED INFORMATION AND SITE DETAILS

Ms. Terri McClung, AHEDC Office Manager and USEPA Brownfields Grantee Representative, represents a User. Mrs. McClung provided information related to the site as presented in the User Questionnaire (Appendix B). Property owners of each site are also considered Users of this ESA and were requested to complete the ASTM-based User Questionnaire. Information was received from the owner of the AET Slab site and is incorporated below. A response was not received from the owner of the ROR site.

## 3.1 Ownership Record Review

Prior ownership data available through the Virginia Mass Appraisal Network (VamaNet) and deeds reviewed through the Alleghany County Circuit Court in Covington, VA on June 9, 2020 is presented below and use is discussed in Sections 4.0 and 6.0. Copies of deeds are presented in Appendix B.

| Grantor | Grantee | Date | Instrument |
|---|---|---|---|
| **Rail Over River Industrial Park / Tax Parcel # 38--A-----1-** | | | |
| AET, Inc. | Rail Over River Industrial Park, LLC | 10/06/2011 | RE20110001821 |
| **AET Slab / Tax Parcel # 38--A-----1C** | | | |
| Kemper Lewis D or Lana H | Kemper Properties, LLC | 10/24/2012 | RE20120002086 |
| Dawn Properties, LLC | Kemper Lewis D or Lana H | 10/24/2012 | RE20120002087 |
| Applied Extrusion Technologies, Inc. | Dawn Properties, LLC | 09/25/2006 | RE20060002812 |
| Applied Extrusion Technologies, Inc. | Dawn Properties, LLC | 12/15/2003 | RE20030004655 |

## 3.2 Environmental Liens or Activity and Land Use Limitations

Draper Aden Associates did not perform an environmental lien search as part of this assessment. AHEDC and the AET Slab owner did not indicate any environmental liens or use limitation for the site on the respective User questionnaire (Appendix B).

## 3.3 Specialized Knowledge

Mrs. McClung provided information related to the site as presented in the User Questionnaire (Appendix B). Draper Aden Associates also conducted interviews with a local government official and with the owner(s) (User(s)) (Section 6.0).

No other information was provided to Draper Aden Associates regarding specialized knowledge in connection with the subject property.

## 3.4 Commonly Known or Reasonably Ascertainable Information

Virginia Department of Environmental Quality (DEQ) and United States Environmental Protection Agency (USEPA) records were requested through the Freedom of Information Act process for the subject property and select additional properties (detailed in Section 4.2). This information was reviewed and used as a cross-reference to the ERIS regulatory file review information as discussed in Section 4.1.

Except where noted, no additional information was provided to Draper Aden Associates regarding RECs in connection with the subject property.

## 3.5 Valuation Reduction for Environmental Issues

The value of a property is based on current fair market value. The role of the Phase I ESA is to provide information regarding RECs that may be used in the determination of fair market value. There is the potential that discovery of historical environmental issues, conditions or liens, or other RECs during this Phase I ESA could affect the value of the property. The property is currently being marketed for reuse.

## 3.6 Owner, Occupant, Key Site Manager (Property Manager) Information

As noted in Section 3.1, the property is owned by Rail Over River Industrial Park, LLCand Kemper Properties, LLC Mr. Tommy Garten serves as the property owner representative for the Rail Over River Industrial Park property and Mr. Gary Hull serves as the Key Site Manager. Mr. Michael

Persinger serves as the property owner representative and Key Site Manager of the Kemper Properties, LLC owned, AET Slab property. Mr(s). Garten, Hull, and Persinger provided information related to the subject property as noted throughout the report and documented in Appendix B.

## 3.7 Reason for Performing a Phase I Review

Reasons for performing the Phase I ESA are as noted below.

- The site was selected as a recipient of a USEPA Brownfields Assessment Grant. The grant requires completion of a Phase I ESA.
- To facilitate sale and/or redevelopment of the property.
- To qualify for the landowner liability protections, that being the practice that constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" [42 USC §9601(35)(B) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)], if applicable.

The owners intend to use the results of the Phase I ESA to facilitate redevelopment efforts of the subject property.

# 4.0 RECORDS REVIEW

## 4.1 Standard Environmental Review

Draper Aden Associates contracted with Environmental Risk Information Services (ERIS) of Toronto, Ontario, to complete the regulatory database search and to assist parties seeking to meet the record search requirements of the ASTM standard. The ERIS findings are presented in Appendix C which includes locations and explanations of database acronyms used in the sections which follow. Upon review of the ERIS reports, Draper Aden Associates identified and summarized the following information pertaining to the subject property, adjacent and off-site properties, and unmappable orphan properties.

### 4.1.1 Subject Property

The subject property was listed in the ERNS, RCRA NON-GEN, RCRA CESQG, FINDS/FRS, AST, UST, LST, SPILLS, TRIS and ICIS environmental databases searched by ERIS. Details of the database findings are provided below. Cross-references, where provided, are from information gathered through the Freedom of Information Act (FOIA) request to DEQ and information available on the USEPA Envirofacts website. USEPA did not respond to the FOIA request submitted by Draper Aden Associates as of the date of this report.

**ERNS**: NRC Report No: 230390. Hercules Inc. reported on 3/16/1994 that a surficial spill of #2 fuel oil occurred due to faulty equipment leading to an overflow of a storage tank. Approximately 5-gallons reportedly reached an outfall to the Jackson River. The total volume of the release is unknown. Remedial actions were put into place including the use of sorbents and a containment lagoon. It was also noted that "material could be smelled at the river however a sheen could not be detected." Local agencies were notified. Case status was not listed in the ERIS report.

No files were returned in the DEQ FOIA request regarding this incident. USEPA did not provide documentation regarding this incident.

**RCRA NON-GEN**: This RCRA hazardous waste generator listing is identified as EPA Handler ID: VAP203201201 under the company name Rail Over River. According to the ERIS report, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID) as of February 2020.

No files were returned in the DEQ FOIA request regarding EPA Handler ID: VAP203201201. USEPA did not provide documentation associated with this facility.

**RCRA CESQG**: This RCRA hazardous waste generator listing is identified as EPA Handler ID: VAD003132818 under AET, Inc. This site is listed as a conditionally Exempt and Small Quantity hazardous waste generator. Such facilities generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG and CESQG may not accumulate more than 1,000 kilograms of hazardous waste at any time. Reportedly, the site had three incidences of violations which resulted in enforcement by warning letters. Violations or undetermined details were identified in the ERIS report – specifically identification of warning letter(s) associated with site inspections. Information was provided by VDEQ regarding these incidences as noted below.

*DEQ file Cross-reference:*

- A warning letter was issued on September 13, 2000 to AET, Inc. DEQ found the following deficiencies during an August 22, 2000 inspection:

    1. Under 40 CFR 262.11, a person who generates a solid waste, as defined in 40 CFR 261.2 must determine if that waste is a hazardous waste. The facility generates two waste streams for which the facility has not made a hazardous waste determination:

        (a) During an inspection of the paint shop in the Buildings & Grounds building, the inspector observed one 55-gallon drum containing rags contaminated with "mineral spirits." The rags are used for clean up during painting operations and are discarded with other solid waste for disposal in the City of Covington's sanitary landfill. The facility has not evaluated the waste rags to determine whether they may meet hazardous waste characteristic or listing criteria.

(b) During the inspection of a chemical storage room, located adjacent to the paint shop, the inspector observed 55-gallon drums of acetone, methyl ethyl ketone, isopropyl alcohol, and methanol. Some facility representatives were unaware of their purpose/usage in the plant.

Upon further discussion and inspection, the QA/QC laboratory was one area identified as using the above listed solvents. The solvents are used to rinse inks off of a test area on a piece of film. The rinsed solvent/ink mixture is deposited in an open bucket under the fume hood. The solvent appears to evaporate and the ink residue is accumulated indefinitely in the bottom of the bucket. The facility has not evaluated the waste rags to determine whether they may meet hazardous waste characteristic or listing criteria.

2. Under 40 CFR 262.42 (b), a generator of greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter must submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the EPA Regional Administrator for the Region in which the generator is located. For manifest number 09332 and shipment on August 14, 1998, the facility did not have a copy of the manifest signed and returned by the TSDF. Following the inspection, the facility received a copy of the missing manifest from the TSDF and provided a copy to the DEQ.

3. Under 40 CFR 273.15 (a), a small quantity handler of universal waste (a generator who accumulates less than 5,000 kg of universal waste) may accumulate universal waste for no longer than one year from the date the universal waste is generated. Prior to the inclusion of fluorescent light tubes as a universal waste under federal and state regulations, the facility had managed the spent fluorescent light tubes as hazardous waste (D009) and shipped the tubes off-site to a recycler. The facility's last shipment was made on January 12, 1999, and the facility representatives explained that fluorescent light tubes have been accumulated since the last shipment. In the absence of generation records, the facility may have accumulated fluorescent light tubes for greater than one and a half years.

   The facility shall take steps to begin shipping the fluorescent light tubes off-site as either a hazardous waste or a universal waste. If the facility chooses to handle the fluorescent light tubes as a hazardous waste, the facility will have to comply with the applicable generator requirements for the quantity accumulated.

AET Inc. successfully responded to the DEQ warning letter and on March 27, 2002, DEQ issued a follow-up letter detailed below:

1.a. Based on your response, the facility collected a sample of the waste rags and submitted to Olver, Inc. for the TCLP analysis. Based on the results of the analysis, the facility has determined that the rags are non-hazardous and shall manage the rags as a solid waste.

1.b. Based on your response, the facility collected a sample of the ink residue and ink cleaning rags and submitted to Olver, Inc. for the TCLP analysis. Based on the results of the analysis, the facility has determined that the waste inks and solvents are a hazardous waste. The facility no longer evaporates the inks/solvents but accumulates the inks/solvents in appropriate containers. The facility made its first off-site shipment of hazardous waste inks and solvents on February 13, 2002.

- In Oil Discharge Contingency Plans (ODCPs) for operations at this site dated April 12, 1992, June 9, 1995, and November 30, 2000 the following chemicals (table below) were discussed as used at the facility. Other chemicals may have been used and changes to storage locations or volumes may have occurred over time; however, this information provides a basic snapshot of chemicals used and stored at the site.

| Chemical | Location | Max Amount On-Site 1991-1994 |
|---|---|---|
| Acrylic Acid | Latex Plant | 18,000 lbs. |
| Aluminum Sulfate | Sand Filter Plant | 12,000 lbs. |
| Ammonia | Coatings | 4,808 lbs. |
| Chlorine | Sand Filter Plant | 3,000 lbs. |
| Methyl Methacrylate | Latex Plant | 46,000 lbs. |
| Muric Acid | Powerhouse | 12,000 lbs. |
| Nitric Acid | Salt Bath Area | 2,500 lbs. |
| Liquid Nitrogen | Latex Plant | Not Provided |
| Sodium Hydroxide | Powerhouse | 6,000 lbs. |
| Vinylidene Chloride | Latex Plant | 260,000 lbs. |
| #2 Fuel Oil | General Site | 770,000 gal |
| Gasoline | General Site | 3,085 gal |
| Oil | General Site | 150,000 gal |
| Ethylene Glycol | Sand Filter Plant | 1,100 gal |

**AST**: The following ASTs were identified in the ERIS report as registered under Facility ID: 2020170; CEDS Facility ID: 200000082959; and Tank Owner ID: 40602 & 33362 under AET, Inc. and Hercules, Inc. All ASTs are listed as dismantled.

| Tank ID# | Size (gals) | Contents | Installation Date | Closure Date |
|---|---|---|---|---|
| 6140106 | 20,000 | Fuel Oil | 8/4/1994 | Not Reported |
| 6140104 | 1,000 | Used Oil | 9/2/1990 | 3/1/2001 |
| 6140101 | 500,000 | Fuel Oil | 1/1/1974 | 5/27/1994 |
| 6140105 | 20,000 | Fuel Oil | 8/4/1994 | Not Reported |

Additional files were provided by DEQ regarding ASTs at this site.

*DEQ file Cross-reference:*

- AST registration forms and ODCPs provided by DEQ identify the following information and timelines regarding ASTs at the subject property:

| Form/ OCDP Date | Description |
|---|---|
| 11/12/1991 (OCDP) | 6 tanks listed for site: (1) 500,000-gal fuel oil, (3) 500-gal diesel, (1) 500-gal gasoline, (1) 1000-gal used oil |
| 3/11/1994 | 4 tanks listed for site: (1) 500,000-gal fuel oil, (1) 550-gal gasoline, (1) 550-gal diesel, (1) 1000-gal used oil |
| 6/3/1994 | 4 tanks listed for site: (1) 500,000-gal fuel oil, (1) 550-gal gasoline, (1) 550-gal diesel, (1) 1000-gal used oil |
| 11/04/94 | 5 tanks listed for site: (2) new 20,000-gal fuel oil tanks installed 08/04/94 to replace 500,000-gal tank which was dismantled 5/27/94. (1) 550-gal gasoline, (1) 550-gal diesel, (1) 1000-gal used oil |
| 6/9/1995 & 11/30/00 (OCDPs) | 7 tanks listed for site: (1) 550-gal gasoline, (1) 550-gal diesel, (1) 1,000-gal waste oil, (2) 235-gal diesel, (2) 20,000-gal fuel oil |
| 6/22/2001 | 3 tanks listed for site (no details): closure of 1,000-gal tank removed from site 03/01/01 |
| 12/21/05 | 4 tanks listed for site: (2) 20,000-gal fuel oil tanks, (1) 550-gal gasoline, (1) 550-gal diesel |
| 4/17/2012 | Remaining (2) 20,000 gal tanks removed 2/15/2012 last used 05/31/2008 |

AST Note: 1995 & 2005 ODCPs indicates there were (2) additional diesel tanks each of 235-gal capacity in the brick powerhouse building as fuel supply for power failure backup motors.

- In a December 13, 1994 Above Ground Storage Tank Closure Subsurface Investigation performed by Olver Inc., it was noted that the 500,000-gal fuel oil tank was removed along with approximately 400 feet of 2" steel underground piping associated with the

AST system. Analytical results from laboratory analyses confirmed the presence of TPH concentrations in the range of No. 2 fuel oil in soil samples collected below the underground piping. The TPH concentrations were quantified at 680 to 9,700 mg/kg (The DEQ reporting level for TPH is 100 mg/kg). Petroleum impacted soil was detectedalong the underground piping which was excavated as part of the closure and not within the nearby vicinity of the AST. The source of this release was not verified. Fuel oil may have been released from a rupture in the piping or from an underground storage tank (UST) release reported under Pollution Complaint No. 94-2336. The underground piping from the AST traveled through the area impacted by the release from the USTs. The piping and backfill would likely act as a conduit for transport of a release. Impact along the pipeline is known to extend for nearly 300 feet from the former UST location. Lateral and vertical extent are unknown. Because the impact is in the vicinity of and extends from the former UST location, it is believed that residual impact present is part of the UST leak rather than from the piping from the AST.

No further information was found within the DEQ FOIA files regarding the closure of this tank.

- DEQ issued a warning letter on November 2, 2000 forcing AET Inc. to update their ODCP within 90 days or reduce the aggregate aboveground oil storage capacity below 25,000 gallons through proper tank closure(s) under 9 VAC 25-91-120.

- An AST Registration Form dated April 17, 2012 indicated that two, 20,000-gallon fuel oil ASTs had been closed. Reportedly, they were last used on May 31, 2008 and closed on February 15, 2012. Engineering and Testing 2000 performed soil and groundwater testing in the area and found no detects of TPH or BTEX.

ASTs documented during the July 9, 2020 site reconnaissance are discussed in Section 5.

**UST**: UST registrations were identified in the ERIS report under Facility ID: 202017; CEDS Facility ID: 200000082959; and Tank Owner ID: 40602 & 33362 under AET, Inc. and Hercules Inc. Reportedly, the facility previously had one UST which is currently listed as removed from ground.

| Tank ID# | Size (gals) | Contents | Installation Date | Closure Date |
|---|---|---|---|---|
| R1 | 1,000 | Gasoline | 5/8/1961 | 11/9/1989 |

*DEQ file Cross-reference:*

This tank is discussed in detail in the Leaking Storage Tank section below under PC 19900612.

**LST**: Three leaking tank incidences were identified in the ERIR report under CEDS Facility ID: 200000082959 for AET Films Inc. and Hercules Inc. All leaking tank incidences are listed as closed.

| PC # | Release Date | Closure Date |
|---|---|---|
| 19900612 | 11/6/1989 | 8/4/1994 |
| 19942336 | 2/24/1994 | 8/4/1994 |
| 20012122 | 3/18/2001 | 6/7/2001 |

Information regarding petroleum incidences was provided by DEQ.

*DEQ file Cross-reference:*

**PC 19900612** references a leaking 1,000-gallon gasoline UST in the general location of the existing AST fueling island (southeast corner of Building No. 1). A soil gas survey was completed of the area. Analytes selected for testing included methyl tertiary butyl ether (MTBE) and BTEX compounds (benzene, toluene ethylbenzene, and xylenes)

A Total Volatiles map presenting data showed three low level occurrences on the site: near the pit, in the northwestern corner of the survey area and along the eastern survey boundary. None of the samples from the site contained MTBE/pentane or benzene above the 1 µg/1 detection limit.

Very low levels of toluene were observed southwest of the pit and at the northwestern corner of the survey area. Ethylbenzene and xylenes were present at low levels south of the railroad tracks along the eastern survey boundary. A minor m- and p- xylene occurrence was also observed at the northwestern corner of the survey area.

A closure letter from DEQ was issued dated August 4, 1994 referencing the following:

1. The residual soil contamination does not present an exposure risk to human health under the current site conditions.

2. The solute attenuation model predicts that no detectable concentration of benzene will reach the Jackson River.
3. Levels of BTEX in the ground water are below the chronic surface water quality standards and thus will not adversely impact the Jackson River.

- **PC 19942336** references a UST system removed from the ground including three No. 2 fuel oil tanks (25,000-gallon, 10,000-gallon, and 11,000-gallon capacities) and their associated piping and ancillary equipment. According to plant personnel, the UST system was removed from the subsurface in the mid to late 1980's, and the basin was backfilled with excavated material. No documentation of closure conditions was on file.

  On 21 and 22 of February 1994, soil samples were collected and analyzed for BTEX and Total Petroleum Hydrocarbons (TPH). TPH concentrations in the soil samples ranged from 210 mg/kg to 7,900 mg/kg. Soil samples from each borehole exhibited TPH concentrations above the DEQ action level of 100 mg/kg TPH. Total BTEX concentrations in the soil samples ranged from 340 µg/kg to 8,110 µg/kg. Visual and olfactory observations made during drilling operations suggested that ground water beneath the basin may also have been impacted by petroleum hydrocarbons. On 24 February 1994, following the receipt of the initial laboratory analytical results, Hercules notified the DEQ Release Response Office of a suspected release and Pollution Complaint Number PC94-2336 was assigned to the case.

  On 28 February and 1 March 1994 additional Phase II borings and sampling took place. Temporary groundwater monitoring wells also was installed. TPH concentrations in two samples ranged from 160 mg/kg to 790 mg/kg. Each of these soil samples exhibited TPH concentrations above the DEQ action level of 100 mg/kg TPH. Total BTEX concentrations in soil samples were 100 µg/kg and 152 µg/kg, respectively.

  TPH as gasoline was detected in three samples at concentrations of 13 mg/L, 11 mg/L, and 13 mg/L, respectively. These concentrations are above the DEQ Water Quality Standard of 1.0 mg/L. Total BTEX concentrations in three samples were measured at 51 µg/L, 71 µg/L, and 47 µg/L, respectively. Two samples exhibited benzene concentrations of 8 µg/L and 19 µg/L, respectively. These benzene concentrations exceeded the Safe Drinking Water Act Maximum Contaminant Level (MCL) of 5 µg/L.

  Based on the free-phase hydrocarbon measurements collected during well construction and subsequent monitoring events, it was apparent that a minimal amount of product was present in the former UST basin.

  A closure letter from DEQ was issued dated August 4, 1994 referencing the following:

  1. The residual soil impact does not present an exposure risk to human health

under the current site conditions.
2. The solute attenuation model predicts that no detectable concentration of benzene will reach the Jackson River.
3. Levels of BTEX in the ground water are below the chronic surface water quality standards and thus will not adversely impact the Jackson River.

**PC 20012122** AET Inc. installed a 1000-gallon waste oil storage tank to accumulate the spent lubricants so that they may be collected and pumped out in bulk quantities. The tank was positioned under a canopy and contained in a sealed reinforced concrete dike system. The tank was informally abandoned in place in the mid 1990's in an "empty" state. The
spent lubricants were then managed by sending the lubricants to the recycler in barrel quantities. The tank did not go through a formal "AST Closure'' and was still reported on the site AST inventory. During a DEQ ODCP review it was noted that the tank, although out of service, was not being inspected at the prescribed frequencies. Immediately after the DEQ field review, AET Inc. prepared for formal "AST Permanent Closure" by obtaining a building permit on November 30, 2000 to have the tank removed.

After making arrangements with a tank disposal customer, AET Inc. removed the tank from the dike location and shipped the tank to Environmental Options Inc. on March 1, 2001. The local building inspector. Mr. Michael Dolan was present that day and noted on the attached building permit ''Tank inspected and found in acceptable condition with no apparent leaks present".

The quantity released amount is believed to be <55 gallons based on the review of the tank having no leaks, the dike area having no staining, and the contaminated soils were located where barrel emptying used to occur. However, there is no known event, so quantity is not certain.

Soil samples were taken on March 2, 2001. Results were not reported in the DEQ file; however, it was noted in a March 16, 2001 letter from Olver Laboratories to AET Inc. that TPH impact was found and more samples may be required to determine the extent.

Hand written notes discovered within the FOIA files indicated VDEQ staff had subsequently renumbered the PC to 20012122A. DAA submitted a separate FOIA request to VDEQ on August 4, 2020 requesting files specific to PC 20012122A. No files were returned regarding PC 20012122A.

**SPILLS**: The SPILLS database indicates that three potential releases occurred at the subject property, documented below:

| Legacy IR No: | Release Date | Closure Date | Description |
|---|---|---|---|
| 2005-W-0095 | 9/29/2004 | 11/29/2004 | 600 Gallons of ethylene glycol discovered spilled into lagoons. |
| 2012-W-2353 | 3/13/2012 | 3/14/2012 | Anonymous call of asbestos removal/demolition. DOLI inspected site. No problems found. |
| 14606 | 5/24/2012 | 6/7/2012 | Anonymous call of asbestos removal/demolition. DOLI inspected site. No problems found. |

*DEQ file Cross-reference:*

DEQ FOIA request files confirmed these database entries but did not provide additional information for these events.

**FINDS/FRS:** The subject property is identified in two instances within the FINDS/FRS database. Rail Over River is listed as a RCRA operator under system ID# VAP203201201. Rail Over River Industrial Park, LLC, EPA Registry Id: 110000555998 is listed within the following databases:

| Information System | System Facility Name | Information System Id/Report Link | Environmental Interest Type |
|---|---|---|---|
| Toxics Release Inventory System | Applied Extrusion Technologies | 24426HRCLSEDGEM | TRI Reporter |
| Icis-Air (Air) | Rail Over River Industrial Park LLC | VA0000005158000002 | Air Minor |
| Virginia - Comprehensive Environmental Data System | Applied Extrusion Technologies | 200000082959 | State Master |
| Emission Inventory System (EIS) | Applied Extrusion Techs Inc. | 6683911 | Air Emissions Classification Unknown |
| National Pollutant Discharge Elimination System (ICIS-NPDES) | Rail Over River Industrial Park LLC | VA0003450 | ICIS-NPDES Non-Major |
| Air Facility System | Rail Over River Industrial Park LLC | 5158000002 | Air Synthetic Minor (Temporarily Closed) |
| Risk Management Plan | Applied Extrusion Technologies, Inc. | 100000115332 | RMP Reporter |
| Resource Conservation and Recovery Act Information System | Applied Extrusion Technologies, Inc. | VAD003132818 | CESQG (Y) |
| Integrated Compliance Information System | Applied Extrusion Technologies, Inc. | 45714 | Formal Enforcement Action |

Pertinent information related to the site's Virginia Pollution Discharge Elimination System (VPDES) program, which falls under the purview of the NPDES program, sludge management, wastewater treatment plant, air permitting, toxic releases, and additional documentation of environmental monitoring associated with the nearby Hercules Landfill is provided below.

*DEQ file Cross-reference:*

**VPDES Permit No. VA0003450**

Hercules Inc. / AET Inc. utilized four labeled (and two unlabeled) lagoons south of Building No. 1 to control latex sludge. Sludges were previously managed within the lagoons and a sludge management area south of Building No. 2. These sludges were reportedly disposed of in an adjacent (formerly) landfill to the west (SWP 093) also owned by Hercules Inc.

In 2004, the groundwater monitoring program for the landfill recorded upgradient (direction of subject property) hits of chloroform, 1,1-dicholorethylene, cis-1,2 dichloroethylene, tetrachloride, and trans-1,2-dichloroethene. Hercules Inc. cited the off-site AET Inc. facility (formerly Hercules Inc.) as the possible source for these detections. This led to a DEQ review of AET Inc. operations regarding sludge handling procedures discussed below.

- The following information is pulled from a July 6, 2005 internal DEQ Waste Compliance Memo from Elizabeth A. Lohman, DEQ Environmental Program Manager, which provided background description of the facility processes:

  Wastewater from the plant is treated and discharged under VPDES Permit VA0003450. The wastewater treatment units include several unlined lagoons. Historically, wastewater from latex manufacturing (which includes the 1,1-dichloroethylene) was discharged to a series of lagoons and treatment was limited to alum addition and settling. More recently, the wastewater from latex manufacturing is pretreated by air stripping prior to discharge to the lagoons.

  In 1997 - 98, AET collected groundwater samples from a groundwater monitoring network surrounding the unlined lagoons. The results of the groundwater assessment confirmed the presence of organic constituents in type and concentrations similar to those found in the landfill monitoring network.

  Historically, the lagoons were dredged on some frequency, and the sludge (a "soupy" mixture) was placed in an earthen depression "Bermed Storage Area" for dewatering. The "dewatered" sludge, which still had a high moisture content, was removed and placed in the Hercules (SWP 093) landfill. More recently, the dewatered sludge is taken to the City of Covington Sanitary Landfill.

  By lack of reference, the facility's VPDES permit does not appear to cover the earthen depression in which the sludge has been/is managed. In addition, the facility has not submitted a sludge management plan. Finally, the groundwater monitoring network does not include the earthen depression.

  After conducting a search in RCRAInfo, the facility appears to a generator subject to Corrective Action. The reason for CA is not absolutely clear; however, the RCRAInfo reports lists a 6300-gallon hazardous waste storage tank and a call for a Part B hazardous waste permit in the early 1980's. The current facility representatives have no knowledge of the storage tank.

Wastewater Treatment System: A description of the wastewater treatment system is provided below:

Wastewater is generated from non-contact cooling water used in film extrusion, contact cooling water from plastic recycling, brine and wash water used in the latex production equipment, wash water used in the film coating, chlorinated water filtration plant backwash water, powerhouse boiler blowdown, clean-out of fire ponds, and storm water runoff. The facility's process wastewater and a majority of the storm water are treated by on-site lagoons. All industrial wastewater, with the exception of the latex manufacturing related wastewater, flow to lagoon #4. After pretreatment, the latex manufacturing waste water flows initially to either lagoon #1 or lagoon #3 and goes through a series of settling ponds prior to entering lagoon #4. The remaining on-site storm water flows through either Outfall 003 or Outfall 004. Discharge from the fire ponds is designated as Outfall 002.

Process wastewater from internal Outfall 102, which consists of contact cooling water from the polymer reclamation operation, flows directly to lagoon #4 prior to discharging through Outfall 001. No pretreatment is provided.

Process wastewater from internal Outfall 103 is generated when the facility rinses the latex tanks on a weekly basis. The wastewater from this process has several treatment steps. The wastewater from the latex coating manufacturing is treated by air and steam stripping and then is chemically treated with alum in two concrete mixing/settling basins.

Settling basin overflow and non-contact cooling water from the latex mixture storage tank discharges to lagoons #1 or #3. The flow is piped to either one of two primary settling lagoons. Overflow from the primary lagoons goes to a secondary settling lagoon (lagoon #2). Alum is added to this lagoon to promote settling. Overflow from the secondary settling lagoon is pumped through the monitoring weir for Outfall 103 and ultimately to lagoon #4. Internal Outfall 102, water treatment filter backwash, boiler house blow down, and the on-site industrial sewer line also flow to lagoon #4 prior to discharging through Outfall 001.

Wastewater flows from lagoon #4 through a 30-inch pipe to the Jackson River. A Parshall flume and composite sampler are located near the lagoon to record flow and collect effluent samples. Four drainpipes, located at different elevations within the lagoon are valved so that the facility can control the water elevation in the lagoon. Each of the four drainpipes discharge through Outfall 001. The width of the Jackson River at the location of Outfall 001 was estimated to be 140 feet.

The discharge from the fire pond (tanks) clean-out and storm water that falls on the tanks are the only discharges to Outfall 002. A chloro-bromine chemical is applied to the tanks to help control algae. The two tanks are drained approximately twice per year and accumulated algae is removed. The discharge travels through a heavily vegetated drainage way for approximately 400 yards before reaching the river.

The bulk of the on-site storm water drains to Outfall 001. Most of the roof drains are piped directly to the final polishing pond. A small portion of the northwest corner of the production area, near the reclaim area, drains to Outfall 004, which is a new outfall proposed with this permit application. Outfall 003 drains a small portion of the storm water on the southeast side of the facility, in the vicinity of the sludge storage area. The discharge is upstream of the railroad crossing and upstream of Outfalls 001 and 002. Since the 1995 permit reissuance, a settling basin has been installed to allow removal of pellets and debris prior to discharge.

All floor drains within the process area are connected to the on-site industrial sewer, which flows to lagoon #4. The boiler house is washed down once per week, and the wash water flows into the floor drains directly to the industrial sewer. Boiler house blow down drains to trench drains in the floor, which flow to a vented, underground storage tank outside the building, and eventually to lagoon #4.

In general, the areas that drain to Outfall 001 (process wastewater, floor drains, and storm water) and Outfall 003 (storm water) have a potential to introduce oil and grease as well as solids into the discharge.

Sewage Sludge Use or Disposal: Since the sanitary wastewater is sent to the City of Covington for treatment, AET does not use or dispose sewage sludge on-site. Wastewater treatment sludge, which accumulates in lagoons #1 - #3, is stored in a bermed area in the vicinity of the former above-ground storage tank. The sludge is generally stored for six months to a year for dewatering, prior to off-site disposal at a solid waste landfill. The berm prevents run-on and run-off of precipitation. The wastewater treatment sludge removed from lagoon #4 is stored in a depression adjacent to the lagoon for dewatering. Once dewatered, the sludge is removed to the bermed sludge storage area. The facility has scheduled a contractor to remove sludge from the bottom of lagoon #4 within the next few weeks. Sludge from lagoon #3 was removed in March 2000.

The VPDES permit issued on November 8,1990 required the facility to develop and implement a ground water monitoring program to "determine if activities at this site were resulting in violations of the Board's ground water standards." In accordance with the provisions of this plan, a ground water monitoring network was established in the areas upgradient and downgradient of the wastewater treatment system, and ground

water monitoring was initiated. Figure 2 depicts the approved monitoring well network. Ground water monitoring was conducted on a quarterly basis for the first year and on an annual basis thereafter. Ground water monitoring parameters included general indicator parameters and ground water quality parameters. The results of this monitoring indicated an increase in ground water total organic halide (TOX) concentrations in the downgradient wells relative to the upgradient reference well. Due to the general indicator nature of this initial monitoring, the constituent or constituents responsible for the increase in ground water total organic halide could not be determined.

An October 22, 1997 groundwater monitoring report by Olver, Inc. detected constituents in MW-9 (located south of Lagoons No. 1, 2, and 3) as follows:

1. Chloroethane;
2. 1,1-Dichloroethene (Vinylidene Chloride);
3. cis-1,2-Dichloroethene;
4. trans-1,2-Dichloroethene; and
5. Vinyl Chloride.

The AET facility manufactures a latex polymer from 1,1-dichloroethene and several other non-chlorinated compounds. This process operates in batch mode and generates wastewater from rinsing process vessels. The wastewater from this process contains 1,1-dichloroethene which is removed from the wastewater by steam stripping. This treatment is conducted in full accordance with Virginia regulations. Per 9VAC 20-60-970 B.5 (40 CFR 2707(c)(2)(v)), this facility does not require a hazardous waste permit for treatment of the wastewater because all waste treatment occurs in wastewater treatment units as defined in 9VAC 25-60-0 (40 CFR 260.10).

After steam stripping the wastewater is analyzed to ensure that the concentration of 1,1-dichloroethene has been reduced to acceptable levels. The average concentration of 1,1-dichloroethene for calendar year 1996 was less than 0.039 mg/L, well below the threshold limit of 0.7 mg/L. Following steam stripping and analysis, the wastewater is treated with alum and flows by gravity to the lagoons for removal of latex solids by settling. The other four (4) detected compounds are more than likely biological degradation products of either 1,1-dichloroethene or latex polymers. The facility does not purchase (except potentially as trace contaminants in purchased 1,1-dichloroethene) or use vinyl chloride, chloroethane, cis-1,2-dichloroethene, or trans-1,2-dichloroethene.

Based on the results of the ground water characterization and assessment the following conclusions are provided.

1. The results of the chemical specific analytical data indicate that about half of the total organic halide (TOX) analytical result in MW-9 can be attributed

to specific chlorinated compounds. The remaining detected TOX cannot be attributed to specific chlorinated compounds.
2. The TOX that cannot be attributed to specific chlorinated compounds may be due to the presence of halogenated compounds that were not on the comprehensive parameter list or dissolved/suspended short chain latex polymers, or due to analytical interference from chloride ion.
3. The sole completed exposure route is recreational use of the Jackson River.
4. The results of the hydrogeologic calculations indicate that the exposure point concentration in the Jackson River under critical flow conditions is 0.000015 mg/L which is less than the promulgated Health Water Quality Criteria and drinking water maximum contaminant levels.
5. Therefore, no significant risk is associated with the detected concentrations of chlorinated compounds in the ground water at the AET site.
6. Annual monitoring of ground water quality should be sufficient to ensure protection of human health and the environment.

- Another internal memo dated January 22, 2010 by Elizabeth A. Lohman, DEQ Environmental Program Planner, to Kip Foster, DEQ Water Permitting Manager, was reviewed regarding closure of the sludge lagoons. She noted that since the units are not classified as RCRA surface impoundments and they are regulated by a VPDES permit, the Virginia Solid Waste Management Regulations deferred authority for closure of the lagoons to the Water Permitting Program. She concluded with the following observations:

1. Based on internal Hercules' documents, the facility modified its wastewater system to comply with the September 25, 1990 land disposal restriction for 1,1-DCE, but the facility cannot document that the modifications were actually complete before September 25, 1990. In the absence of this documentation, though, the DEQ has insufficient information to classify the lagoons as RCRA Subtitle C regulated surface impoundments.

2. Groundwater monitoring between 1994 and 2000 shows concentrations of 1,1-DCE exceeded the MCL for drinking water. No corrective actions were taken during this time period.

3. Since the facility ceased operations, the concentration of 1,1-DCE has decreased, but the constituent continues to be detected in groundwater.

4. The groundwater monitoring network is inadequate to determine the vertical and horizontal extent of the 1,1-DCE contaminant plume.

5. The sludge contains 1,1-DCE. If left in place, the sludge will continue to be a source of 1,1-DCE and groundwater impacts will continue. The nature and extent of the plume and the level of 1,1- DCE impact of the sludge and underlying soil has not been adequately delineated.

6. If soils from the berms are mixed with the sludge, the net effect will be to dilute the concentrations of 1,1-DCE but will also increase the volume of contaminated material without actually removing or destroying contaminant mass.

- No additional information was provided in the DEQ FOIA request regarding any further testing of the lagoon area or final closure procedures. Draper Aden Associates reached out to Kip Foster and Elizabeth A. Lohman on July 17, 2020 to request additional information regarding the closure of the lagoons. Mr. Kip Foster replied on July 20, 2020 that he could not recall any additional information due to the age of the project. His correspondence is included in Appendix C.

- VPDES Permit No. VA0003450 was terminated on February 11, 2015 after Rail Over River, LLC filed a No Exposure Certification on January 28, 2015.

**Air Permit Registration No. 20510**

There are no active air permits at this facility. Prior operations were conducted with air permits and monitoring in place. Chemical particulates are known to have been discharged. Particulate deposition is likely.

DEQ FOIA request files confirmed the ERIS database entries and noted previous fuel oil and coal use as boiler fuel at the facility. In an Air Pollution Control Board letter dated August 16, 1978, perchloroethylene use at the site was documented.

**TRIS**: TRI FD: 24426HRCLSEDGEM The subject property is identified in the Toxic Release Inventory Program. The following chemicals were reported to EPA during the years 1987 to 2006:

| Chemical Name | TRI Chemical ID |
|---|---|
| Acrylic Acid | 79-10-7 |
| Chromium | 7440-47-3 |
| Hydrochloric Acid | 7647-01-0 |
| Methyl Methacrylate | 80-62-6 |
| Ozone | 10028-15-6 |
| Sodium Hydroxide | 1310-73-2 |
| Vinylidene Chloride | 75-35-4 |

***Source:*** https://enviro.epa.gov/facts/tri/ef-facilities/#/Chemical/24426HRCLSEDGEM

No additional information was returned in the DEQ FOIA request regarding TRI FD: 24426HRCLSEDGEM.

**Documents returned in the DEQ FOIA request are included in Appendix C; however, due to the number and size of the files, the documents are provided as a separate attachment.**

**ICIS**: The subject property is identified in two instances within the ICIS database. The Integrated Compliance Information System (ICIS) is a system that provides information for the Federal Enforcement and Compliance (FE&C) and the National Pollutant Discharge Elimination System (NPDES) programs. Rail Over River Industrial Park, LLC is listed under an air system ID# VA0000005158000002. AET, Inc./Hercules Inc. appears to have been the recipient of a civil judicial action under ICIS #45714 / EA identifier 03-1993-0485. No further information is provided.

*DEQ file Cross-reference:*

No additional information was provided in the DEQ FOIA request regarding Permit No. VA0000005158000002 or ICIS #45714 / EA identifier 03-1993-0485.

EPA's Enforcement and Compliance History Online (ECHO) database was reviewed regarding EA identifier 03-1993-0485 (https://echo.epa.gov/enforcement-case-report?id=03-1993-0485). The Civil Enforcement Case Report summarized the case as a "violation of Asbestos NESHAP at the Hercules, Inc. Facility in Covington, VA brought on by defendant Massie Carver, Inc., the contractor hired to demolish the fibers building at the facility. Violations arose out of demolition activities".

| | |
|---|---|
| Enforcement Action Data Entered | 05/01/1993 |
| Referred To Dept Of Justice | 09/30/1993 |
| Complaint Filed With Court | 10/12/1995 |
| Concluded | 01/31/1997 |
| Final Order Entered | 01/31/1997 |
| Final Order Lodged | 01/31/1997 |
| Enforcement Action Closed | 05/28/1998 |
| Penalty Assessed or Agreed To: | $1,200,000 |

### 4.1.2 *Adjacent Properties*

The ERIS report used the ASTM-defined minimum search distances in the regulatory database review for this project.

Two adjacent properties were identified within the SPILLS environmental database.

Legacy IR No: 2019-W-3962 / Incident ID: 155798 (ERIS ID# 2)

> Wheeler's Custom Paint listed at 809 W. Edgemont Drive, was identified due to an anonymous call regarding a car painting business "painting cars without a paint booth

> and no proper disposal of paint and paint related products". The incident reportedly occurred on 10/9/2018 and the incident received closure on 7/12/2019 when an inspector failed to locate the painting operation and marked it out of business.

No painting business was observed adjacent to the subject property during the June 9, 2020 site reconnaissance.

The remaining SPILLS database entries reference various sewer overflow incidences occurring at the City of Covington WWTP at 711 West Park Street. The adjacent WWTP is positioned east of the subject property along the Jackson River and discharges to the Jackson River which flows east of the subject property (and ultimately south of Covington). Any sewer overflows at the WWTP are not expected to impact the subject site.

No impact was observed to the subject property during the June 9, 2020 site reconnaissance.

### 4.1.3 *Vicinity Properties*

One nearby property, the former Hercules Inc. Covington Landfill (ERIS ID#7), is located approximately 100 feet to the west and was once contiguous with the subject property. The industrial landfill is listed as closed (4/17/2015) under permit 900000000681 / SWP093.

*DEQ Cross-reference:*

DEQ FOIA documents provided the following information regarding the closed landfill, Permit No. SWP093.

> The industrial landfill consists of two landfill units. The northern unit consists of a previously closed landfill which contains baled, saran-coated polypropylene film. The southern unit consists of three phases. Phase 1 contains approximately 2,800 cubic yards of baled, saran-coated polypropylene film. Phase 2 operated as a trench fill and contains approximately 6,700 cubic yards of latex solids generated at the Hercules wastewater treatment plant. Phase 3 is a pit which contains approximately 2,000 tons of baled, saran-

coated polypropylene film. The northern and southern landfill units are un-lined. The three phases of the southern landfill unit were closed with a clay cap. (See Figure 6).

Permit Issued 03/14/73
Last waste received 10/5/93
Site closed 6/27/95

An annual groundwater monitoring report of the closed landfill for the year 2014 returned in the DEQ FOIA request (GES, *2014 Annual Groundwater Monitoring Report Hercules Incorporated – Closed Industrial Landfill, Covington, VA SWP-093*, February 2015) provides groundwater contour mapping illustrating that groundwater beneath the landfill flows north, west, and south away from the subject property and towards the Jackson River, and therefore it is not expected to impact the subject property (Figure 7).

The property entered the Voluntary Remediation Program (VRP) in December 2014. Historical environmental investigations identified localized carbon tetrachloride (CT) impacts in groundwater on the eastern portion of the property, upgradient of the landfill. Corrective action measures implemented for CT during 2010-2014 included enhanced bioremediation and groundwater monitoring. Based on effective and successful implementation of enhanced bioremediation and the supporting routine and performance monitoring data, the Virginia DEQ terminated post-closure care in April 2015 as CT concentrations declined below the Groundwater Protection Standard (or non-detect). The site characterization report submitted in March 2017 concluded that this property does not pose a risk to human health or the environment provided land use controls are implemented. A Certification of Satisfactory Completion of Remediation was issued by Virginia DEQ upon completion of the VRP requirements on March 26, 2018 with groundwater use and digging restrictions implemented.

No impact was observed to the subject property during the June 9, 2020 site reconnaissance.

Two additional vicinity sites (ERIS ID#s 8 & 9) are present nearby to the north in the Rayon Terrace community; however, these sites are located across a hydrogeological divide created by the Jackson River and are therefore not expected to impact the subject property. A final vicinity site, the Edgemont Service Station (ERIS ID #11), is a leaking underground storage tank incident

(PC-20162303) located approximately 2200-feet east of the subject site. The Edgemont Service Station received regulatory closure on March 29, 2016, and due to the distance from the property and assumed groundwater flow directions is not expected to impact the subject property.

Vicinity properties located south and west of the subject property are considered unlikely to have the potential for environmental impact to the subject property due to inferred groundwater flow directions. Generally, properties located to the north and east of the subject property are considered topographically and hydrologically upgradient and cross-gradient from the subject property.

Due to historical commercial development in the area, differentiation of potential impacts from surrounding off-site properties would be challenging.

Note that a number of the sites listed above were designated as closed in their respective databases. Although these sites have received regulatory closure, regulatory closure does not preclude that a site may be reopened in the future should new data become available.

### 4.1.4 *Orphan Sites*

Unmappable orphan properties, those that have poor or inadequate address information, were also reviewed. Due to the limited information available for review, the minimum search distance for these orphan sites was limited to the subject property and adjoining properties.

One orphan site (Incident ID#25017) is listed as "Old AET plant" on W. Edgemont Drive. An email complaint was filed on 2/17/2014 stating that the former AET plant being torn down was burning some of the demolition wastes. An inspection was made on an unknown date in which "no evidence of open burning was observed at the time of the site visit." The incident received closure on 5/18/2016.

Based on review of the information, the remaining listed orphan sites were not located on or adjoining the subject property and are, therefore, not considered RECs based on available information at this time.

### 4.1.5 Summary of Regulatory Files

The regulatory files reviewed as part of this assessment support long term use, storage, and disposal of hazardous chemicals and petroleum products. Limited operational documentation was available for review and daily handling practices are unknown. Not all incidences were resolved though other releases were closed by regulatory agencies with residual impact present based on consideration of potential risk to human health and the environment. Regulatory closure does not preclude that a site can be re-opened if additional information or impact is identified.

In addition, operations at the site occurred prior to regulatory controls. No information was available regarding chemical use, storage, and disposal during pre-regulatory operations. The potential presence of chemicals or petroleum in soil, groundwater or as vapor cannot be eliminated based on current information.

### 4.1.6 Activity and Use Limitations

No AULs were identified for the subject property. However, prior releases were closed with residual impact present. The results of prior environmental monitoring may affect site use and redevelopment options even in the absence of formal restrictions. The current property owner did not indicate knowledge of any AULs for the property since purchase.

## 4.2 Other Records Review

Virginia Department of Environmental Quality (DEQ) and United States Environmental Protection Agency (USEPA) records were requested through the Freedom of Information Act process for the subject property (associated addresses 901 & 901A W. Edgemont) and adjacent properties Hercules Inc. Landfill and Wheeler's Custom Paint identified in the ERIS regulatory database

search report. DEQ regulatory files were returned for 901 W. Edgemont Drive and the Hercules Inc. Landfill and file information is presented in Appendix C. This information was reviewed and used as a cross-reference to the ERIS regulatory file review information as discussed in Section 4.1 and included in Appendix C. USEPA did not respond to the FOIA request in time for inclusion in this report.

## 4.3 Physical Setting Sources

In accordance with ASTM E1527-13, the U.S. Geological Survey (USGS) Covington, Virginia 7.5-minute topographic quadrangle map (USGS, 2019), floodplain maps, and soil and geologic mapping of the area were reviewed to evaluate the physical setting of the subject site and vicinity as described below.

### 4.3.1 Topographic Conditions

According to the 2019 USGS Covington, Virginia 7.5-minute topographic quadrangle map, the subject property is situated at approximately 1,200 feet above mean sea level. The site slopes to radially north, west, and south toward the Jackson River. In addition to the 2019 topographic map, Draper Aden Associates reviewed historical 7.5 Min and 15 Min topographic quadrangle maps from 2016 to 1921 (Appendix B). Review of the current and historical topographic maps does not provide evidence that the elevation has changed on the subject property; however, due to the resolution of the maps and due to site development, the potential of slight elevation changes and the introduction of potential fill material on the subject property cannot be completely eliminated. An elevation drop of approximately 20-feet occurs between the former factory area and the southern portion of the property utilized for agriculture.

### 4.3.2 Surface Water Hydrology

The subject property and nearby properties slope radially toward the Jackson River. The Jackson River borders the site along the north and south property lines. Unless storm water control or other redirection is implemented, storm water at the subject property likely flows off site along the topographic gradient and discharges into the Jackson River.

### 4.3.3 Flood Hazard

According to U.S. Federal Emergency Management Agency (FEMA) mapping Map Numbers 51005C0213D and 51005C0194D (effective dates 12/17/2010), the subject property has areas located within Zone X, area of minimal flood hazard and Zone AE, area with base flood elevation. A regulatory floodway zone is also depicted upon the subject property (Appendix C).

### 4.3.4 Groundwater Flow Direction

The Jackson River lies north, south and west of the subject property and serves as the local groundwater discharge point (groundwater sink) for the area. Assumed groundwater flow beneath the subject property is radially towards the south-flowing Jackson River. This is consistent with groundwater flow characterization of the nearby Hercules Landfill area, which utilized site specific groundwater monitoring wells to determine groundwater flow direction and rate. General characterization of groundwater flow assumes relatively simple subsurface aquifer conditions and that the Jackson River is the local groundwater discharge zone.

### 4.3.5 Geologic and Soil Setting

The subject property is located within the Valley and Ridge Physiographic Province of Virginia. As indicated on the Geologic Map of Virginia (DMME, 1993), the subject property is underlain by Devonian Millboro Shale and Needmore Formation. The Millboro shale is characterized as a black, fissile shale, underlain by the Tioga metabentonite and gray calcareous shale of the Needmore Formation.

The geologic rock types underlying the subject property contribute to the nature of underlying soils through in-situ weathering; however, soils have likely been disturbed during site development and may not reflect pre-development conditions. Detailed soil information is presented in the ERIS Physical Setting Report included in Appendix C.

## 4.4 Historical Use Information – Subject Property and Adjacent Properties

The historical site use as described below was based on review of information presented in the various practicably reviewable and reasonably ascertainable historical resources evaluated and referenced in Section 9.0 and located in Appendix B. Historical fire insurance maps were

unavailable for the subject site. Historical topographic maps were available for years 1921 to 2019. City directories were available between the years 1998 and 2018. Aerial photographs were available for years 1944 to 2018. Recorded land title records and interviews were used to assist in the understanding of previous uses of the subject property and surrounding area.

### 4.5 Historical Use - Subject Property:

First developed use was unable to be confirmed; however, groundbreaking reportedly occurred in August,1928 for a new plant for the Industrial Rayon Corporation. The following operational history is summarized from an AET Plant Historical Background Information document authored by Mike Wade, former AET Covington Site Manager dated October 8, 2008 and provided to DAA by the AHEDC.

- For thirty (30) years the Covington plant produced rayon, primarily for use in garments. As nylon and polyester materials began making inroads into the markets previously served by rayon, the Covington plant responded by purchasing and installing a Hans J. Zimmer nylon producing line. This line was installed in a new building east of the original plant and began producing nylon 6 material in 1954. Additionally, Industrial Rayon initiated pioneering work in the melt spinning of polypropylene with the High Polymers Group in Cleveland. That group was transferred to the Covington location in the late 1950's.

  Hercules Powder Company purchased of the Covington plant and in 1961, the first commercial production of polypropylene fiber material in North American successfully occurred in Covington. Hercules entered into a joint venture ICI Corporation (UK) for the development of a new "bubble" film process and by 1963, Hercules ingenuity in a research facility in Wilmington and process development in Covington led to the first North American commercial production of polypropylene film at the Covington plant. These successes and subsequent business growth resulted in expansions in Covington with a peak of 1800 employees. Included in this growth was a $35MM investment in the Film 2 plant in 1977 that brought the film plant capacity to 60MM lb/yr. In 1980, a fire in the fibers spin tower in Covington resulted in closure of the fibers operation. In April 1994, the Hercules film operation was sold to AET, Inc. In March 2008, the Covington plant film production operations were closed due to pressures from foreign competition and the older technology film production processes.

Regulatory documents returned in the DEQ FOIA request added additional information regarding the site operational history.

- AET manufactures extruded polypropylene film for use in food-grade packaging applications. The facility also manufactures polyvinylidene chloride latex as a coating for some of the packaging films that are produced. Solid polypropylene polymer pellets are shipped in by rail and stored in outdoor covered silos. Different finished products are produced by varying the blending of the pellets, the extrusion coating, and the extrusion process itself. Waste polymer/film generated during the production process is reclaimed at the plant. The film is chopped, extruded, and pelletized. The reclaimed pellets are blended with the virgin pellets and reused. Waste film that has been coated with latex cannot be reclaimed and is currently being disposed in the landfill.

  The facility deactivated one of the film extrusion processes in early 1999. This cut-back left the plant with one film extrusion process line. AET withdraws water through an intake on Potts Creek. Approximately 0.650 MGD of water is withdrawn for use in the production areas. The facility also obtains potable water from the City of Covington.

- To produce the plastic wraps, polypropylene is extruded into large continuous bubbles. The size and shape of the bubbles is closely controlled to produce an even thickness of plastic. The bubbles cool as they drop several stories, then are slit, coated in some cases, and rolled. Some of the film is coated with a latex saran mixture to make food wrap film. The saran mixture is a water-soluble polymer which solidifies upon exposure to heat.

**The following historical observations pertain to the Rail Over River Industrial Park property (tax parcel: 38--A-----1-).** The aerial image observations discussed below are cross-referenced with historical facility maps (Figures 4 and 5) discovered within the DEQ FOIA request to provide context of former usage. Historical topographs first show the former factory occupying the site in 1945 (prior map dated 1923).

- <u>1944 Aerial Image</u>
  Building No. 1, the original 1928 factory building, is present on the subject site. Also appearing in the 1944 aerial image are the boiler house, fire towers/ponds, sand filter plant, and various buildings to the south of Building No. 1. Facility permitting maps indicate the southern buildings were used for warehousing, storage, paint shop, carpentry shop, and as a satellite hazardous waste accumulation area.

- <u>1969 Aerial Image</u>
  The 1969 aerial shows Film Tower No. 1 and polymer storage silos adjacent west of Building No. 1. The 1969 aerial also depicts two lagoons (#1 and #2) south of the factory. Twelve vertical polypropylene silos are present approximately 300-ft west of the sand filter plant. An additional twelve vertical polypropylene silos are present west of Film Tower #1. Rail cars are present on the property utilizing four separate spurs west and south of Building No. 1.

- 1977 Aerial Image
  In the 1977 aerial image, three new buildings to include Building No. 2 and the Steel Storage Shed referenced in Section 2.4, appear to the west of Building No. 1. It also shows lagoons #3 and #4 present and the former 500,000-gal fuel oil above ground storage tank (AST) west of the former fire ponds. Two additional lagoons, not identified on the facility maps, are visible in the lagoon area south of the factory.

- 1982 Aerial Image
  The latex manufacturing building and monomer tanks building are present adjacent east of the sand filter plant.

- 1995 Aerial Image
  In the 1995 aerial, the 500,000-gal fuel oil AST has been removed and in its place a sludge management pit. It appears seven of the twelve polypropylene silos west of the sand filter plant have been removed. Two ASTs are present approximately 50-feet west of the sand filter plant. The drive-over truck scale is visible west of Building No. 2. Land disturbance appears in the area between Building No. 2 and the railroad spur to the south.

- 2000 Aerial image
  Seven of the polypropylene silos west of the sand filter plant have been removed. Five silos remain.

- 2005 Aerial Image
  The remaining five polypropylene silos west of the sand filter plant have been removed.

- 2005 Aerial Image
  The two tanks adjacent west of the sand filter plant have been removed.

- 2009 Aerial Image
  Lagoons #s 1, 2, and 3 appear filled in as well as the unidentified additional two lagoons appear filled in. Lagoon #4 remains.

- 2012 Aerial Image
  Film Tower #2, previously south of Building No. 2, is removed. The latex manufacturing building and monomer tanks building formerly east of the sand filter plant are also removed. The twelve polypropylene storage silos east of Building No. 1 are removed. Equipment and materials are stored in the laydown areas to the west and south of Building No. 2 and within the parking lot north of Building No. 2, potentially in relation to the demolition project.

- 2014 Aerial Image
  The former fire suppression ponds, boiler house, and Film Tower #1 west of Building No. 1, and the former warehouse, storage building, and paint/carpentry shop south of Building No. 1 have been removed.

**The following historical observations pertain to the AET Slab property (tax parcel: 38--A-----1C)**

The aerial image observations discussed below are cross-referenced with historical facility maps (Figures 4 and 5) discovered within the DEQ FOIA request to provide context of former usage.

- 1944 Aerial Image
  The site appears cleared and likely agricultural in use.

- 1956 Aerial Image
  A portion of the former AET fiber building is constructed.

- 1963 Aerial Image
  Additions have been made to the former AET fiber building doubling its size.

- 1969 Aerial Image
  Further additions have been made to the former AET fiber building appearing to be at its largest footprint.

- 1977 Aerial Image
  An approximate 18,000sf metal sided warehouse is added south of the AET fiber building. (now part of adjacent Dawn Warehousing property)

- 1982 Aerial Image
  Reportedly, a fire occurred in the former AET fiber building in 1980. Possible fire damage is visible to the western and southern halves of the former facility.

- 1995 Aerial Image
  The AET fiber building has been removed, leaving the former slab in place.

- 2006 Aerial Image
  The AET Slab is being utilized for tractor trailer parking.

- 2008 Aerial Image
  Construction of a metal building (4,000sf according to VamaNet) is underway in the northwestern corner of the slab. This building is currently a commercial glass installation business. Reportedly, the glass business has entered into an owner financing agreement with Kemper Properties, LLC to purchase approximately 1.7-acres of the AET Slab upon

which the business is sited. Remaining areas of the slab continue to be used for tractor trailer parking.

## 4.6 Historical Use - Adjacent Properties and Vicinity:

***Summary***

Based on information noted above, adjoining and surrounding properties in the general vicinity of the subject property were and continue to be a mixture of commercial and residential tracts from the late 1800s to the present. Historical uses of surrounding properties were identified as RECs as discussed below. The following information summarizes historical adjacent property use. Select noted properties are identified on Figure 2.

***Adjacent Properties***

***North***

Property use adjoining to the north of the subject property is residential (beyond the Jackson River). The property appears vacant and in various stages of being wooded or cleared land in the 1944 to 2000 aerial photos. The 2005 to 2018 aerial photos appear to show a residential property.

The adjacent property to the northeast is currently the Jackson River Sports Complex, home to tennis, basketball, and baseball courts. A cellular tower is also present on the property. Aerial images indicate that the property has been used as a baseball field since the earliest photo taken 1944.

Adjacent and vicinity properties to the north are topographically lower in elevation to the subject property and assumed to be hydrologically down-gradient.

***East***

A large cross-shaped building is present adjacent to the east in the 1944 aerial photo. Its former use is unknown. Remaining land use to the east appears agricultural in the 1944 aerial photo.

In the 1956 and 1963 aerial photos, the cross-shaped building remains to the east-northeast and the construction of the Town's wastewater treatment plant (WWTP) is visible to the east-southeast. The 1969 aerial photo depicts an addition of the former AET fiber plant along with a parking area utilizing the area directly east between the cross-shaped building and the WWTP. The cross-shaped building is removed between 1982 and 1995. The 1982 aerial image shows a new building constructed to the east-northeast along W. Edgemont Drive. The building is home to a City of Covington fire station. 2005 aerial imagery shows a new commercial building constructed just behind the City owned building off W. Edgemont Drive to the east-northeast of the subject property. VamaNet property data shows the building belonging to Jackson River Enterprises and consisting of approximately 20,000sf, constructed in 2002. The building is a household waste recycling center. Areas to the east remain unchanged from 2002 through the 2018 aerial photo and 2020 site reconnaissance.

Adjacent and vicinity properties to the east are topographically higher in elevation to the subject property and assumed to be hydrologically upgradient and cross-gradient.

***South***

The Jackson River forms the southern border of the subject site. Aerial photography shows the adjacent parcel to the south and southwest beyond the river as wooded or agricultural. A large combined elementary and middle school was constructed in 2008 to the southeast.

Adjacent and vicinity properties to the south are topographically lower in elevation to the subject property and assumed to be hydrologically down-gradient.

***West***

Aerial photography shows property use adjoining to the west was utilized for agriculture from 1944 to 1969. The 1969 aerial image shows an area immediately adjacent to the west-southwest as being disturbed and potentially under excavation. In the 1977 aerial photo, the adjacent parcel appears to be utilized for subject property facility employee parking. The formerly disturbed area to the west-southwest is allowed to become overgrown with vegetation and

remains that way until sometime between 2014 and 2016 in which the area is cleared. A wetlands pocket, as documented in the ERIS Physical Setting Report, is visible in the cleared area to the west-southwest. The site appears to be returning to a vegetated state in the 2018 aerial photo.

Adjacent and vicinity properties to the west are topographically lower in elevation to the subject property and assumed to be hydrologically down-gradient.

# 5.0 SITE RECONNAISSANCE

Draper Aden Associates performed the Phase I ESA site reconnaissance on June 9, 2020. The subject property and surrounding areas are depicted in Figures 2 and 3. Representative site photographs are presented in Appendix A.

## 5.1 Methodology and Limiting Conditions

Field observations were documented systematically. Field personnel observed exterior conditions and interior rooms using a clockwise pattern. After completing observations on the subject property, field personnel observed conditions at adjacent properties from the property boundary. Some areas were not entered as they represent confined spaces or structural integrity was unknown. Limiting conditions included:

- Areas south of the former lagoons and along the Jackson River, noted as "no industrial activity" on historical facility maps were not observed due to limited access and overgrowth of vegetation.
- The area leading to the railroad trestle was fenced and not observed.
- Warehoused materials and remaining equipment cover much of the flooring throughout Building No. 1 and Building No. 2 limiting view of the underlying surfaces.
- Utility tunnels beneath Building No. 1 were not observed in their entirety due to confined space concerns.
- An active area of Building No. 1, occupied by Taghleef Industries, was not entered.
- The basement of Building No. 2 reportedly contained groundwater and was not entered.
- The basement of the sand filter plant was not observed.
- The rectangular, metal sided warehouse located at the southeast corner of the subject property is owned by another entity, Dawn Warehousing, and was not entered. The warehouse was formerly part of the AET Inc. facility and lies partially within the subject property boundary. The warehouse is discussed in the AET Slab owner interview located in Appendix B.

## 5.2 General Site Setting (Beyond Information Provided in Section 2.0)

No additional site setting information beyond that presented in Section 2.0.

## 5.3 Exterior Observations

The northern, brick exterior of Building No. 1 facing W. Edgemont Drive appears intact and undamaged. Former offices on the east side of Building No. 1 have been removed. Repairs are

being made to this area and to the west side of the building. Most of the accessory buildings supporting the former factory (Buildings No. 1 and No. 2) have been removed leaving various rubble and concrete slabs around the exterior of these buildings.

A power company is utilizing an area south of Building No. 2 to store vehicles and equipment. Equipment for the local paper mill, Westrock, is also stored on the property, south of Building No. 2. Also, south of Building No. 2, is a pile of stone and wood debris reportedly brought in from an off-site local roadway project. Piles of 57-stone and sand are present west of Building No. 1 that are reportedly being used to fill in basement areas and to make floor repairs in Building No. 1. An unused contractor's work trailer and former AET electrical and mechanical equipment is positioned north of the sand filter plant. Railroad spurs traverse across the area behind Building No. 1, most of which are in poor condition. A stickup groundwater monitoring well was observed south of Building No. 1 and abandoned flush mount groundwater monitoring wells were observed in the northwest parking lot related to the nearby industrial landfill.

The AET slab site has tractor trailers parked on it along with a few small stacks of wooden beams, reportedly reclaimed wood that is to be reused.

### 5.3.1 Chemical Storage Areas (excluding storage tanks and drums discussed below)

No exterior chemical storage areas were observed.

### 5.3.2 Underground or Aboveground Storage Tanks

- A former Ethylene Glycol AST of approximately 1,000-gallons is present attached to the sand filter plant.
- Two 550-gallon steel ASTs are present at the southeast corner of Building No. 1, one labeled gasoline and one off-road diesel. Reportedly, the gasoline tank is still in use and the diesel tank is out-of-service.
- Two propane ASTs are present, one on the east side of Building No. 1 and one of the west side of Building No. 2.
- The foundation and support structure for the former used-oil AST is present south of the lube storage building. (AST has been removed)
- Two, 50,000-gallon, elevated water tanks are present west of Building No. 1.
- A subsurface void was observed west of Building No. 1 in the area of the former boiler house. The former use is unknown; however, it may be a vented, underground storage

tank formerly associated with the boiler house drainage system discussed in reviewed VDEQ FOIA literature.

### 5.3.3 Odors

No strong, pungent or noxious odors were noted.

### 5.3.4 Pools of Liquid

No pools of liquid were observed on the property.

### 5.3.5 Drums

Approximately six, yellow, 55-gallon, steel drums were noted adjacent the Dominion Energy field trailer south of Building No. 2. The drums appeared new and empty.

### 5.3.6 Polychlorinated Biphenyls (PCBs)

Pole mounted transformers were noted along W. Edgemont Drive. Presence or lack of PCBs was not noted.

### 5.3.7 Subsurface Structures (Excluding storage tanks, wells and septic systems)

- Multiple stormwater drop inlets and stormwater control devices are present across the developed portions of the subject property.
- A reported manway-tunnel formerly connecting the AET fiber building (AET Slab) to Building No. 1 is presumedly located near the southeast corner of Building No. 1. Potential evidence of the tunnel was observed in this location.
- An unknown subsurface structure is present adjacent west of the sand filter plant. An approximate 36-inch, round, steel, hatch is present at this location.
- Un-marked manhole-size lids are present in the former AET slab. Further investigation is needed to determine what is beneath.

### 5.3.8 Waste Disposal Areas (Including Solid Waste)

Waste rock and woody debris has been placed south of Building No. 2; reportedly off-site material hauled in from a local road project. Three steel dumpsters were observed in the grassed area between Building No. 1 and the sand filter plant.

### 5.3.9 Pits, Ponds, or Lagoons

Lagoon No. 4 remains present on the property and contains liquid. Former named Lagoon Nos. 1, 2, and 3 noted on historic facility maps and two unnamed lagoons pictured on aerial images were observed to be filled in.

### 5.3.10 Stained Soil or Pavement

Stained gravel was observed outside of the lube storage building. No other areas of stained soil or pavement were observed.

### 5.3.11 Staining or Corrosion

No other staining or corrosion was observed.

### 5.3.12 Stressed Vegetation

No stressed vegetation was observed.

### 5.3.13 Wells and Septic Tanks

A monitoring well, believed to be No. 5 as noted on Figure 5, was observed as a stickup, steel, well casing south of Building No. 1. An abandoned flush mount monitoring well was observed in the northwest semi-trailer parking lot associated with monitoring of the nearby landfill (Figures 6 & 7). No drinking wells or septic tanks were observed.

## 5.4 Interior Observations (Beyond Information Provided in Section 2.0)

Building No. 1 is in various stages of renovation. Sections of the sawtooth roofing and concrete slab have been repaired. Some of the former basement areas have been filled in with stone to be poured with concrete to match the existing slab. Areas of the concrete slab in Building No. 1, particularly those warehousing the large paper rolls, show excessive cracking. This is due to the slab not being designed to withstand the force and weight of current warehousing activities. Building No. 1 is one-story except for a section approximately 30' x 330' at the south end of the

building which is two-stories. This area houses a large air conditioning unit, several ASTs, an elevator, and various other piping and equipment.

An area at the southeast corner of Building No. 2 was labeled as "Reclaim" on a facility map hanging in the building. The reclaim area is approximately 60' x 130' and contains much of the original Hercules Inc. / AET Inc. equipment occupying the space. Most of the space in Building No. 2 is utilized for warehousing Westrock equipment to include large motors, gear boxes, steel tanks, conveyor equipment, loose steel parts, and various other components. The presence of machine oil or hydraulic fluid in the motors and gear boxes is unknown.

The active space used by United Industrial Services (UIS) is located at the southwestern corner of Building No. 2. An area where UIS power washes equipment was observed inside the building. A painting area was observed along the south wall. An area of hydraulic hose assembly was also observed. The slab in Building No. 2 appeared to be in good condition. The basement area of Building No. 2 was blocked off and reportedly it has standing water within.

The steel storage shed located adjacent Building No. 2 is empty. The facility map reference above noted the building's former use as mill roll storage. The sand filter plant is abandoned and no longer in use. It contains a basement that was not observed. The lube storage building is discussed in the following sections.

### 5.4.1 Chemical Storage Areas (excluding storage tanks and drums discussed below)

Building No. 1

- A former maintenance room holds a small amount of paints, cleaning supplies, and lubricants in spray cans on a metal shelving unit.
- The former laboratory space contains various chemicals in small quantity (Lucidene 603, Sylobloc, pHisoHex, and other unidentified substances).

Building No. 2

- (4) 5-gallon buckets of hydraulic oil were observed on the floor in the UIS work area. No secondary containment was present.
- Small quantities of various paints and lubricants in spray cans were observed in the UIS work area.

Lube Storage Building

- Approximately 80, 5-gallon poly buckets and steel cans of various oils, lubricants, roofing coatings, truck wash, and unidentified substances are stored in the lube storage building. Leaking of contents to nearby areas was observed with no secondary containment.

Sand Filter Plant

- A pallet of bagged aluminum sulfate remains in the sand filter plant.

No other chemical storage areas were observed on the subject property.

### 5.4.2 Underground or Aboveground Storage Tanks (USTs/ASTs)

Building No. 1 – Basement(s)

- In the basement areas of building No. 1 reside multiple steel ASTs of various sizes (approx. 250 to 1000-gallons) associated with former use. Their former use and contents (or lack thereof) is unknown.
- Two ASTs (approx. 500-gallons) in the basement area at the south end of the building were made of wood and appeared to be for liquid storage. The current or former contents/use is unknown. No secondary containment was present

Building No. 1 – (2-story section, south end of factory)

- Five ASTs are present on the second floor of various sizes (approx. 500 to 1,000-gallons) labeled ammonia, syloid, sodium oleate, talc, and cov. wax. No secondary containment was present.
- Three unknown ASTs of approx. 1000-gallons capacity each are present on the base floor of this area. Existing or former contents/use is unknown. No secondary containment was present.

Building No. 2 – UIS Active Area (southwest corner)

- An approximate 250-gallon used oil tank with no secondary containment was observed.
- Three, steel, hydraulic oil tank reservoirs were observed totaling approximately 55-gallons. No secondary containment was present.

Lube Storage Building

- A rectangular, steel tank of approximately 60-gallons capacity with hand pump was observed. The tank is typical of a truck-bed auxiliary transfer tank. No secondary containment was present.

Throughout Buildings No. 1 and No. 2 are various floor penetrations with and without caps. These could potentially be UST fill/vent ports. UST(s) within these buildings cannot be ruled out without further investigation.

### 5.4.3 Odors

No strong, pungent or noxious odors were noted.

### 5.4.4 Pools of Liquid

Pools of liquid were observed in Building No. 1 appearing to be rainwater attributed to the leaking roof. Groundwater appeared within the northern basement space of Building No. 1 in a drainage channel. The basement area of Building No. 2 was not entered due to the reported presence of groundwater. A sistern of water was observed in one basement area surrounding equipment though no odors nor sheens were observed. A pump system was also observed in the basement area of Building No. 1 that was not currently in use.

### 5.4.5 Drums

Building No. 1

- A steel drum was noted in the northern basement area. The drum is severely rusted and contents are unknown.
- A fiber drum of NeoREZ R-600 is present in the southern 2-story area. Reportedly, NeoREZ R-600 is an aliphatic urethane dispersion product used in primer for the filmic packaging industry.
- A fiber drum of ROBOND L-37 is present in the southern 2-story area. The Robond series is an adhesive product.
- An open poly drum was noted near the laboratory area labeled CONQUOR corrosion inhibitor.

No secondary containment was present.

A sign hung in the laboratory noted the use of Acetone, MEK, and Isopropyl Alcohol in 55-gallon quantities.

Lube Storage Building

- (5) poly and (8) steel 55-gallon drums are present with no secondary containment. One of the steel drums without a lid, appeared to contain waste paint and solvent spray cans. Drums with labels included machine oil, 50% caustic soda liquid, and multipurpose tractor lubricant. Most were without labels.
- (3) 15-gal steel drums with no secondary containment are present. These drums had loose lids allowing the contents to spill on adjacent areas.

No other drums were observed on the subject property.

### 5.4.6 Polychlorinated Biphenyls (PCBs)

Potential PCB containing fluorescent lighting and older electrical equipment original to the 1929 factory are present throughout Building No. 1. Potentially hydraulic operated lifts noted below have the potential to contain PCBs in the hydraulic fluid. No other potential PCB containing equipment was observed.

### 5.4.7 Subsurface Structures including Drains and Sumps

Building No. 1

- Throughout the building are many floor drains ranging from large grated areas to small circular drains.
- A sump was observed within the northern basement area.
- Hydraulic lifts are present in one of the maintenance areas in the northern section of the building.
- Throughout the building are unknown floor penetrations which may be evidence of subsurface structures.

Building No. 2

- Throughout the building are many floor drains ranging from large grated areas to small circular drains.
- A potential hydraulic lift is present in the "Reclaim" (eastern) area of the building.
- Throughout the building are unknown floor penetrations which may be evidence of subsurface structures, particularly in the "Reclaim" area.

AET Slab

- Throughout the slab of the former AET Inc. building are circular drains.
- Large manhole size lids are present in the slab.
- The Key Site Manager and Owner of the AET Slab property indicated the potential for a former tunnel connecting the AET Slab to Building No. 1. This was not observed.

A discussion of drains is found within the VPDES permit discussion in Section 4.1 which may pertain to those observed.

### 5.4.8 Waste Disposal Areas

A trash compactor is present on the east face of Building No. 1 used by Taghleef Industries. Poly film was observed in the compactor. No other waste disposal areas were identified.

### 5.4.9 Pits, Ponds, or Lagoons

No pits, ponds or lagoons were observed. Shallow ponding water was observed in Building No. 1 in areas of water intrusion from the leaking roof.

### 5.4.10 Staining or Corrosion

Building No. 1

- Minor staining is present within the former maintenance and factory areas.
- Rust, corrosion, and peeling paint were observed throughout, particularly in the damp basement areas and areas where roof leaks allowed water intrusion.

Building No. 2

- Within the "Reclaim" area on the east end contains an approximate 1.5-inch diameter hose attached to a steel column. A black substance stained the hose, the column, and the concrete slab beneath the hose.
- Minor floor staining was observed in the UIS hydraulic oil work area.

Lube Storage Building

- Significant staining is present within the Lube Storage Building.

## 5.5 Asbestos Containing Materials (ACM)/Lead-Based Paint (LBP)/Wetlands

A lead-based paint and asbestos containing materials survey was excluded from this Phase I ESA scope of services. DAA observed signage within Building No. 1 labeling ACM presence. Piping within the sand filter plant was also marked with ACM labels from a previous ACM survey. Due to the age of the buildings, lead based paints and asbestos containing materials should be considered present and taken into consideration with any redevelopment planning.

A wetlands assessment and delineation were not part of the Phase I ESA services; however, wetlands are depicted within the subject property boundary on the *US Fish and Wildlife Service National Wetlands Inventory Map* (see Appendix C).

## 5.6 Adjacent Properties

The conditions of adjacent properties were observed from the subject property boundary and public right-of-way. The properties surrounding the subject property are as noted in Section 2.5.

Draper Aden Associates personnel did not observe any evidence of environmental issues with the adjoining properties from the subject property boundary or from the public right-of-way. An approximate 250-gallon diesel AST was observed on the western side of Jackson River Enterprises, Inc. building. No staining was observed in the area to indicate impact to the subject property. Draper Aden Associates personnel did not observe any pits, ponds, lagoons, or pools of liquid, nor any visual or olfactory evidence of environmental issues from the subject property boundaries or from the public right-of-way to indicate impact from the remaining adjacent properties to the subject property.

# 6.0 INTERVIEWS

Draper Aden Associates conducted interviews, provided questionnaires, and/or requested information from the current property owner, past property owner, local fire department, and a local government official, unless noted below. Interview, questionnaire, and/or information request documentation is included in Appendix B.

## 6.1 Current Property Owner/Key Site Manager and User

Mr. Michael Persinger is the Owner Representative and Key Site Manager of Kemper Properties, LLC, owners of the subject property (AET Slab) and of Dawn Warehousing which operates on adjacent property to the south. Mr. Persinger stated he was unaware of any USTs or ASTs located on the AET slab site. He stated that he thought there was an underground manway-tunnel that formerly connected the former AET building with the existing Rail Over River Industrial Park building (Building No. 1). Mr. Persinger stated that the AET slab is utilized for tractor-trailer storage by the Westrock paper mill in Covington. He stated that his adjacent properties to the south, Dawn Warehousing, did not store, dispense, or dispose of any hazardous or petroleum products. He was unaware of any hazardous or petroleum spills occurring at the AET slab site or adjacent sites. Mr. Persinger completed an owner interview and User questionnaire for the site (Appendix B).

Mr. Tommy Garten, Owner Representative of Rail Over River Industrial Park, was interviewed regarding his knowledge of the site and current and former operations. Mr. Garten stated that all USTs had been removed from the site that he was aware of. He stated that they do use a 550-gal gasoline AST for the plant trucks (located southeast corner of Building No. 1). He stated that the adjacent 550-gal diesel AST is not in use. Mr. Garten was unaware of any hazardous/petroleum type responses or spills to the site or surrounding sites. Mr. Garten stated that since Rail Over River took ownership, they have removed approximately 250-300,000 square feet of buildings from the site. The remaining buildings are approximately 85% leased out. United Industrial Services, Taghleef Industries, and Ingevity lease interior space, and Dominion

Power utilizes some of the exterior space. Mr. Garten was provided an owner interview and User questionnaire for the site which was unreturned.

Mr. Gary Hull, Key Site Manager of the Rail Over River Industrial Park, was interviewed regarding his knowledge of the site and current and former operations. Mr. Hull was unaware of any remaining USTs at the site. He stated that the Ingevity carbon plant in Covington utilizes the tractor trailer parking lot which has tanker trailers to store carbon or talc. The tractor trailer parking across Edgemont Drive is used by Burns Trucking and Conduff Trucking to park lumber trailers. He stated that the building is mostly utilized for storage of large paper rolls that are considered not fit for customer delivery ("seconds"). The paper is stored until it can be repulped by the local pulp mill or sold oversees to be repulped. The forklifts used to move the paper rolls run on propane and are serviced off-site by Gregory Pool. Mr. Hull was unaware of any hazardous/petroleum type responses or spills to the site or surrounding sites. Mr. Hull's interview is documented in Appendix B.

Mr. Brandon Broughman, Shop Manager of United Industrial Services and tenant of Building No. 2, was interviewed regarding his knowledge of the site and current and former operations. Mr. Broughman stated that the company makes, stores, and repairs equipment for the local paper mill, Westrock. He stated that Safety Kleen services their used oil and any minor spills they may have are contained with Speedy Dry and taken away by Safety Kleen. He stated that Cintas collects and cleans their dirty rags. Mr. Broughman was unaware of any USTs at the site. Mr. Broughman was unaware of any hazardous/petroleum type responses or spills to the site. Mr. Broughman's interview is documented in Appendix B.

No member of Taghleef Industries, Inc. was available for interview.

## 6.2 Local Government Official

Mr. Wes Walker, City of Covington Fireman and former Chief, was interviewed via telephone on May 20, 2020, to obtain information indicating potential RECs in connection with the property (e.g., emergency response and petroleum or hazardous waste releases at the site or on adjacent

parcels). Mr. Walker stated that there were two fires that took place at the site that he could recollect but they did not result in any chemical releases that he was aware of and were not chemical related. Mr. Walker was unaware of any hazardous/petroleum type responses or spills to the site or surrounding sites. Mr. Walker recalled no information regarding past underground/ above ground storage tanks or chemical use, storage, or disposal practices. Mr. Walker's interview is summarized in Appendix B.

Ms. Terri McClung, Office Manager of the Covington AHEDC and USEPA Brownfields Grantee Representative, represents the User. Ms. Akridge provided information related to the subject property as presented in the User Questionnaire (Appendix B).

### 6.3 Past Property Owner

AET, Inc. is the former owner of the property. AET, Inc. (AET Films Inc.) was purchased by Taghleef Industries, Inc. in 2012, after the property had been sold to the current owners. On July 12, 2020, a questionnaire was sent to the Taghleef Industries USA email contact provided on their website (staff.usa@ti-films.com). No response was returned to the request.

# 7.0 FINDINGS, OPINIONS, AND CONCLUSIONS

## 7.1 Findings, Opinions and Conclusions

The results of this assessment represent a review of current conditions based on reasonably ascertainable information and limited observations. A finding of a recognized environmental condition (as defined by the ASTM standard and detailed in the limitations section of this report) does not imply that impact actually exists, but that more information may be warranted.

Draper Aden Associates performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 for the approximately 109-acre subject property located at 901 & 901A W. Edgemont Drive in Covington, Virginia. Any exceptions to, or deviations from, this practice are described in Section 8.0 of this report. This assessment revealed no evidence of RECs in connection with the subject property except for the following:

### 7.1.1 Recognized Environmental Conditions

**Subject Property**

The subject property consists of the buildings and grounds of the former Hercules Inc. / AET Inc. facility, which was constructed in 1929. For thirty years the Covington plant produced rayon primarily for garments. The Covington plant began producing nylon 6 material in 1954. Hercules Powder Company purchased the Covington plant and in 1961, the first commercial production of polypropylene fiber material in North America successfully occurred in Covington. Hercules developed a new "bubble" film process and by 1963, leading to the first North American commercial production of polypropylene film at the Covington plant. Hercules Inc. later sold the company to AET Inc., and in 2008, the facility ceased operations. Many of the former ancillary buildings used in the industrial operations have been demolished as observed during the June 9, 2020 site reconnaissance. Buildings associated with the former industry remain however, including former above ground storage tanks of unknown contents and a lube storage building observed with stored petroleum.

The subject property operated for 79 years as an industrial manufacturing facility. The subject property was identified in the regulatory database search as the facility historically maintained RCRA, VPDES, AIR, UST, and AST permits.

- The historical record included documentation of long-term industrial operations that included storage, handling, and disposal of hazardous chemicals and petroleum products. Documentation of known releases as well as likely historical undocumented releases resulted in the finding of RECs. Areas such as railroad lines, sludge lagoons, historical chemical storage areas, and some petroleum storage tanks have not been evaluated for potential impact from long-term historical use. Individual findings contributing to the determination of a REC are detailed below in Section 7.1.2.

Note, a finding of RECs does not imply that impact exists, but that more information may be warranted. Further discussion regarding RECs, historical RECs, areas of concern and *de minimis* conditions, data gaps, and associated findings and opinions is provided in the body of the report.

### 7.1.2 Findings

*The findings detailed below contributed to the REC conclusions listed in Section 7.1.1.*

- Current operations do not appear to indicate RECs based on observations and information provided throughout this assessment.
- A nearby landfill, 100-feet to the west, was formerly part of the Hercules, Inc. facility. The landfill has a history of GPS exceedances; however, the site has terminated the solid waste permit, completed post-closure care, and has a VRP Certificate of Completion noting groundwater use and digging restrictions.
- Subsurface structures were observed west of Building No. 1 in the area of the former boiler house and west of the sand filter plant. The former uses are unknown.

- A leaking 1,000-gallon gasoline UST (PC 19900612) was removed from the site.
- Presently two 550-gallon above ground storage tanks are present. One currently in use with gasoline and one un-used diesel tank. Past bulk storage and dispensing of coal and petroleum products including gas, diesel, fuel oil, and used oil are documented at the site.
- A 1991 Oil Discharge Contingency Plan document notes three diesel tanks of 500-gallon capacity and one 500-gallon capacity gasoline tank. These tanks are not discussed in any other reviewed regulatory documents and their locations and closure status are unknown. The ODCP is no longer applicable to current operations.
- An August 16, 1978 State Air Control Board correspondence document lists bulk volatile organic compounds consumed during 1977 including 14,000-pounds of perchloroethylene (PCE). Particulate deposition from air discharges is likely.
- Bulk chemical storage and use is documented in historical regulatory files (refer to Section 4.1). Potential chemicals and/or petroleum remain in above ground storage tanks within Building No. 1 and within drums and containers within the lube storage building. Based on the length of time in operation and likely undocumented releases to the interior of the subject property from improper handling/disposal or spills, the former site use is considered a REC.
- Pre-regulatory use, storage, and disposal of chemicals and petroleum products is not fully known.
- A previously demolished building described as a paint and carpentry shop once operated on the subject property south of Building No. 1. Paints, adhesives, stains, paint thinners and other products associated with wood-working and painting were likely used within the building. No releases to the subject property were documented.
- Heavy staining on the interior of the lube storage building and leading outside of the lube storage building is considered an REC.
- Interior drains filled with silt from interior operations may require special handling prior to disposal.

- Historical information provided in regulatory files indicates that previous structures present on the subject site operated coal-powered boilers.
- Based on the information reviewed, historical property use included the interior storage and use of hazardous substances (refer to Section 4.1). Former use also included motor/electrical and hydraulic equipment. Reportedly, the former facility performed tasks including but not limited to in-house maintenance and repairs on electrical, hydraulic and pneumatic equipment. Hydraulic lifts were observed within Building Nos. 1 and 2. Based on the length of time in operation and likely undocumented releases to the interior of the subject property from improper handling/disposal or spills, the former site use is considered a REC.
- Signage stated the presence of asbestos containing materials within the former facility. An asbestos and lead based paint survey were excluded from the scope of services.
- In additional to the hydraulic lifts above, other potential PCB containing equipment such as transformers and electrical panels/switches/ballasts are present on the property. A former electrical substation was also present north of the former boiler house, west of Building No. 1. Staining on flooring was observed near former machinery locations, however there was no documentation indicating former fluids in machinery contained PCBs. As a result, this should be considered during future development.
- Groundwater intrusion was observed within the basements of Building No. 1 and Building No. 2. Groundwater contact with residual hazardous or petroleum products within the facility is likely.
- Historical rail spurs are present on the property. Rail lines can be sources of impact from the locomotives and rail cars, spills during loading/unloading, and leaching from the wooden railroad ties.
- Latex sludge was treated on the subject property. Sludges containing 1,1-dicholorethylene (1,1-DCE) were allowed to sit in unlined lagoons south of Building No. 1 and dewater over time. Sludge was also managed in an area west of Building No. 1 in the area of the former 500,000-gallon fuel oil tank. Dewatered sludges were reportedly disposed of in the nearby Hercules Landfill to the west and to another off-site landfill.

1,1-DCE has been detected in the groundwater at the property and the vertical and horizontal extents of the plume have not been determined. Internal DEQ correspondence in 2010 indicated concern with the lagoon closure plan which was to mix the remaining sludge in the lagoons with the surrounding berm material and be left in place, therefore leaving the material on the property remains a continual source area . DAA reached out to DEQ representatives involved in the project for clarity on the final closure of the lagoons. DEQ responded that they were unable to provide any additional information beyond the FOIA request documentation.

- PC 20012122 & PC 20012122A - AET, Inc. installed a 1000-gallon waste oil storage tank to accumulate spent lubricants so that they may be collected and pumped out in bulk quantities.

  The quantity released amount is believed to be <55 gallons based on the review of the tank having no leaks, the dike area having no staining, and the impacted soils were located where barrel emptying used to occur. However, there is no known event, so quantity is not certain.

  Soil samples were taken on March 2, 2001. Results were not reported in the DEQ file; however, it was noted in a March 16, 2001 letter from Olver Laboratories to AET Inc. that TPH impact was found and more samples may be required to determine the extent.

  No additional documentation regarding PC 20012122 was observed in the FOIA request files. The extent of the impact and whether or not it was allowed to remain as part of a risk-based closure is unknown. Hand written notes in VDEQ FOIA files indicate the incident was given a new PC No., 20012122A.

  No regulatory documents were reviewed regarding final closure of PC 20012122/20012122A, however the ERIS database search indicates PC 20012122 received closure on June 7, 2001. Should new information become available, the case can be reopened. This should be considered if future redevelopment involves residential use or ground disturbance in the area is planned.
- PC 19942336 discussed as an HREC in 7.1.3, received regulatory closure allowing contaminated soil and water above DEQ action levels to remain in place based on a site-

specific risk assessment. Closure was issued based on minimal anticipated risk to human health and the environment based on site use at the time of closure. Should new information become available, the case can be reopened. This should be considered if future redevelopment involves residential use or ground disturbance in the area is planned.

- PC 19900612 discussed as an HREC in 7.1.3, received regulatory closure based on a site specific risk assessment. Should new information become available, the case can be reopened. This should be considered if future redevelopment involves residential use or ground disturbance in the area is planned.
- A vapor intrusion survey was outside the scope of services however, the potential for a vapor encroachment condition was assessed. Vicinity petroleum sites are present within the search radius; however, there are hydrogeologic barriers or divides separating the noted sites from the subject property. There is the potential for non-systematic migration pathways. No petroleum or hazardous material odors were noted during the site reconnaissance. Based on available information, a VEC does not exist at this time, however, should new information become available, vapor encroachment and/or vapor screening should be considered in future redevelopment planning, if applicable.

### 7.1.3 Historical Recognized Environmental Condition (HREC)

- PC 19942336 references a UST system removed from the ground including three No. 2 fuel oil tanks (25,000-gallon, 10,000-gallon, and 11,000-gallon capacities) and their associated piping and ancillary equipment.

  TPH concentrations in two soil samples ranged from 160 mg/kg to 790 mg/kg. Each of these soil samples exhibited TPH concentrations above the DEQ action level of 100 mg/kg TPH. Total BTEX concentrations in soil samples were 100 µg/kg and 152 µg/kg, respectively.

  TPH as gasoline was detected in three water samples at concentrations of 13 mg/L, 11 mg/L, and 13 mg/L, respectively. These concentrations are above the DEQ Water Quality Standard of 1.0 mg/L. Total BTEX concentrations in three water samples were measured

at 51 µg/L, 71 µg/L, and 47 µg/L, respectively. Two samples exhibited benzene concentrations of 8 µg/L and 19 µg/L, respectively. These benzene concentrations exceeded the Safe Drinking Water Act Maximum Contaminant Level (MCL) of 5 µg/L. DEQ issued a risk-based closure of the site dated August 4, 1994 referencing the following:

1. The residual soil impact does not present an exposure risk to human health under the current site conditions.
2. The solute attenuation model predicts that no detectable concentration of benzene will reach the Jackson River.
3. Levels of BTEX in the ground water are below the chronic surface water quality standards and thus will not adversely impact the Jackson River.

- PC 19900612 references a leaking 1,000-gallon gasoline UST in the general location of the existing AST fueling island (southeast corner of Building No. 1). A soil gas survey was completed of the area. Analytes selected for testing included methyl tertiary butyl ether (MTBE) and BTEX compounds (benzene, toluene ethylbenzene, and xylenes).

  A Total Volatiles map presenting data showed three low level occurrences on the site: near the pit, in the northwestern corner of the survey area and along the eastern survey boundary. None of the samples from the site contained MTBE/pentane or benzene above the 1 µg/1 detection limit.

  Very low levels of toluene were observed southwest of the pit and at the northwestern corner of the survey area. Ethylbenzene and xylenes were present at low levels south of the railroad tracks along the eastern survey boundary. A minor m- and p- xylene occurrence was also observed at the northwestern corner of the survey area.
  A closure letter from DEQ was issued dated August 4, 1994 referencing the following:

  1. The residual soil contamination does not present an exposure risk to human health under the current site conditions.

2. The solute attenuation model predicts that no detectable concentration of benzene will reach the Jackson River.
3. Levels of BTEX in the ground water are below the chronic surface water quality standards and thus will not adversely impact the Jackson River.

### 7.1.4 Controlled Recognized Environmental Condition (CREC)

No CRECs, as defined by the ASTM Standard (see Section 8.0), were observed.

### 7.1.5 De Minimis Conditions

The following *de minimis* conditions were noted during this assessment but are not considered a REC at this time.

- Minor staining of flooring surfaces in Buildings No. 1 and No. 2.

## 7.2 Data Gaps

- Identification of initial site development and historical use at 5-year intervals was not determined. This is not considered a significant data gap at this time.
- Draper Aden Associates did not interview the site's prior property owner. The previous property owner may have information related to the remaining items stored within the building as well as prior operations at the site. This data gap is not considered significant.
- The Taghleef Industries film operation within Building No. 1 was not observed. The potential for chemical storage, use, and disposal is considered a significant data gap at this time.
- Basement areas were not observed in Building No. 1, Building No. 2, and the sand filter plant. This is not considered a significant data gap at this time.
- No information regarding historical industrial processes for the facility, during or prior to, the 1970s was found during the course of the assessment; therefore, operations may have utilized unknown hazardous substances and petroleum products at the subject property. This data gap is considered significant and contributed to the finding of RECs.

- An EPA FOIA request submitted April 20, 2020 was not responded to by the date of this report. This is not considered a significant data gap at this time.

# 8.0 LIMITATIONS AND EXCEPTIONS

Draper Aden Associates prepared this document in accordance with generally accepted standards of environmental practice, and in general accordance with the scope and limitations of the ASTM E1527-13: *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process*. The conclusions presented in this report are professional opinions based on data described in this report, and are intended only for the purpose, site location, and project indicated. The conclusions presented in this report are based on the assumption that site conditions do not deviate from those observed during the study and described in this report. This report is not an exhaustive study of potential environmental impact at the site and should not be interpreted as such. An evaluation of subsurface soil and groundwater conditions, radon, wetlands assessment, or historical building evaluation was not performed as part of this assessment. Select ASTM definitions are provided below:

> *controlled recognized environmental condition (CREC)*—a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).
>
> *historical recognized environmental condition (HREC)*—a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted.
>
> *de minimis condition*—a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

*business environmental risk*—a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in a standard ASTM Phase I Environmental Site Assessment.

This report has been prepared for the subject property pursuant to an agreement with the AHEDC and is accurate to the best of Draper Aden Associates' knowledge and belief. This report is based, in part, on unverified information supplied to Draper Aden Associates by third-party sources. While efforts have been made to substantiate this third-party information, Draper Aden Associates cannot guarantee its completeness or accuracy.

It is the responsibility of the client to notify the appropriate federal, state and/or local government agencies of our findings, as may be required by law.

## 8.1 Scope of Services

Draper Aden Associates provides this ESA in accordance with our general Scope of Services for Environmental Site Assessments. This includes the Phase I ESA, which generally consists of historical data and regulatory agency file records. Interviews with the site owner/operator and state and/or local officials were conducted. A reconnaissance of the subject property also was conducted. Data were evaluated and a written report prepared documenting the investigative activities. Findings and recommendations for additional assessment are included, if warranted. An environmental lien search was not conducted by Draper Aden Associates. Subsurface or surface sampling, as well as wetland, asbestos, radon gas, lead-based paint, historical building, and vapor intrusion evaluations are not conducted during the Phase I effort, unless specifically requested by the client.

## 8.2 Terms and Conditions

Draper Aden Associates completed this Phase I ESA in accordance with the terms and conditions noted above.

## 8.3 User Reliance

The Phase I ESA is designed to assist the User, as defined by ASTM E1527-13, in developing information about the environmental conditions of a property. This Phase I ESA is site-specific and relates to the assessment of environmental conditions at the subject property only. No Phase I ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions.

## 8.4 Deviations

Draper Aden Associates conducted this Phase I ESA in general accordance with ASTM Practice E1527-13. The report describes deviations from the standard practice, where necessary. Section 7.0 lists Data Gaps based on limiting conditions. Other identified limiting conditions are detailed in Section 5.0.

## 8.5 Additional Services

Concurrently with the Phase I ESA efforts of the subject property, Draper Aden Associates is conducting a boundary survey, a cursory geotechnical review, a threatened and endangered species review and a cultural and historic resources review.

# 9.0 REFERENCES

**Ownership Review:**


1. Virginia Mass Appraisal Network (VamaNet), http://www.vamanet.com/ April 20, 2020.


**References Cited:**


2. Alleghany County GIS, http://alleghany.mapsdirect.net/Account/Logon - Accessed May 5, 2020.
3. ASTM E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. 2013.
4. ASTM E 2600-15, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, 2015.
5. City of Covington GIS, http://www.covington.va.us/about-covington/maps/gis-maps/ - Accessed March 20, 2020.
6. Environmental Risk Information Services (ERIS). *901 & 901A W. Edgemont Drive, Covington, Virginia 24426, Inquiry Number 20200421036:*
   - *Database Report with Xplorer,* April 23, 2020.
   - *Fire Insurance Maps,* Not Available.
   - *Topographic Maps,* April 22, 2020.
   - *Historical Directory Report,* April 23, 2020.
   - *Historic Aerials,* April 21, 2020.
   - *Physical Setting Report,* April 22, 2020.
7. U.S. Geological Survey (USGS). Covington Quadrangle, Virginia 7.5-Minute Series Topographic Quadrangle, Scale 1:24,000. 2019. Available online at https://viewer.nationalmap.gov/basic/?basemap=b1&category=histtopo%2Custopo&title=Map%20View#productSearch.
8. USF&W, *National Wetland Inventory*, https://www.fws.gov/wetlands/data/Mapper.html, accessed July 12, 2020.


**Interviews:**

- Ms. Terri McClung, Office Manager Covington AHEDC, via email (User Questionnaire), July 13, 2020. terri@ahedc.com
- Mr. Michael Persinger, Site Owner, in person June 9, 2020 and via email (User Questionnaire) June 17, 2020. michael.h.persinger@westrock.com
- Mr. Tommy Garten, Site Owner, in person June 9, 2020. tgauction@aol.com
- Mr. Brandon Broughman, Shop Manager of United Industrial Services (Building No. 2 tenant), in person June 9, 2020.

- Mr. Gary Hull, Key Site Manager of the Rail Over River Industrial Park in person June 9, 2020.
- Mr. Wes Walker, City of Covington Fire Department, via telephone May 20, 2020. Telephone #540-969-9107.

**Signature of Environmental Professionals**

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §311.00(b) of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries, or have directly supervised the activities of the all appropriate inquiries, by Draper Aden Associates staff in conformance with the standards and practices set forth in 40 CFR Part 312.

**Prepared by:**

Company: Draper Aden Associates

Name: Non-responsive based on revised scope. Senior Environmental Scientist/Program Manager I

Signature:_____

Name: Non-responsive based on revised scope. Project Geologist

Signature_____

Name: Non-responsive based on revised scope. Project Environmental Scientist

Signature_____

**Reviewed by:**

Name: Non-responsive based on revised scope., Environmental Program Manager

Signature:_____